ADDENDUM #1
350 SOUTH RECONSTRUCTION PROJECT (#210)

The following changes are hereby made to the Contract Documents for the above referenced Project on May 14, 2024:

The documents listed below have been updated and shall be replaced with the attached versions.

- Document 00 41 23 Bid Form
- Document 01 11 00 Measurement and Payment
- Drawings

This Addendum is hereby attached to and made part of the Bidding Documents and each Bidder shall acknowledge receipt of this Addendum on the Bid Form.

Project Engineer: Shane K. Taggart, P.E.
Jones & Associates
6080 Fashion Point Drive

DOCUMENT 00 41 23
BID FORM
ADDENDUM #1

350 SOUTH RECONSTRUCTION PROJECT (#210)

TABLE OF CONTENTS

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted via SciQuest to Clearfield City.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	**Addendum, Date**

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information,

observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the e execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Bid Schedule on following page(s)

BID SCHEDULE
CLEARFIELD CITY
350 SOUTH RECONSTRUCTION PROJECT (#210)

CONTRACTOR: _____

BASE BID

Item #	M&P Reference*	Bid Item Description	Estimated Quantity	Unit	Unit Price**	Bid Price
1	MP001	Mobilization	1	ls	$	$
2	MP003	UPDES Storm Water Compliance	1	ls	$	$
3	MP005	Traffic Control	1	ls	$	$
4	MP006	Exploratory Pothole	1	ea	$	$
5	MP100	Remove 6” Clay Sewer Pipe	1,050	lf	$	$
6	MP101	Remove Sewer Manhole	6	ea	$	$
7	MP104	Plug Exist 6” PVC Sewer Pipe	4	ea	$	$
8	MP200	Remove 12” PVC Storm Drain Pipe	190	lf	$	$
9	MP201	Remove Storm Drain Structure	1	ea	$	$
10	MP204	Plug 12” Storm Drain Pipe	1	ea	$	$
11	MP300	Remove Exist 6” CIP Water Line	317	lf	$	$
12	MP303	Abandon Water Valve	1	ea	$	$
13	MP304	Remove Fire Hydrant	3	ea	$	$
14	MP305	Remove Water Meter/Assembly	11	ea	$	$
15	MP310	Plug Abandoned Water Line	1	ea	$	$
16	MP325a	Remove Meter Vault	1	ea	$	$
17	MP500	Clear and Grub Site	0.75	ac	$	$
18	MP501	Remove Exist Tree	4	ea	$	$
19	MP502	Excavation	1	ls	$	$
20	MP600	Saw Cut Asphalt	340	lf	$	$
21	MP602	Remove Asphalt	21,555	sf	$	$
22	MP603	Remove Concrete Flatwork	760	sf	$	$
23	MP604	Remove Curb and Gutter	225	lf	$	$
24	MP604a	Remove Curb Wall	50	lf	$	$
25	MP801	Relocate Existing Sign	1	ea	$	$
26	MP804	Relocated Existing Mailbox	4	ea	$	$

27	MP807	Relocate Existing Fence	165	lf	$	$
28	MP105	New 8” Sewer Pipe	1,045	lf	$	$
29	MP107	New Sewer Manholes	6	ea	$	$
30	MP109	Connect New MH to Exist Pipe	2	ea	$	$
31	MP110	Connect New Pipe to Exist MH	1	ea	$	$
32	MP111	Connect Exist Service Laterals	10	ea	$	$
33	MP113	Bypass Sewer Pumping	1	ls	$	$
34	MP117a	Connect New Sewer to Exist Pipe	1	ea	$	$
35	MP205	New 15” Storm Drain Pipe	132	lf	$	$
36	MP209	New Storm Drain Combo Box	1	ea	$	$
37	MP210	New Storm Drain Inlet Box	2	ea	$	$
38	MP213	Connect New Inlet to Exist Pipe	1	ea	$	$
39	MP224a	Connect New Storm to Exist Pipe	2	ea	$	$
40	MP311	New 8” Water Line	312	lf	$	$
41	MP311	New 10” Water Line	797	lf	$	$
42	MP312	Connect New Water to Exist Cast Iron w/ Reducer	2	ea	$	$
43	MP312	Connect New Water to Exist PVC	1	ea	$	$
44	MP314	New Water Line Loop	1	ea	$	$
45	MP315	New Water Service Line	11	ea	$	$
46	MP319	New Water Valve	3	ea	$	$
47	MP320	New Fire Hydrant w/ Aux Valve	3	ea	$	$
48	MP505	Import Trench Material	3,500	ton	$	$
49	MP613	Raise Manhole to Grade w/ Collar	7	ea	$	$
50	MP613	Raise Valve to Grade w/ Collar	3	ea	$	$
51	MP616	Granular Borrow	1,000	ton	$	$
52	MP617	Untreated Base Course (UTBC)	2,500	ton	$	$
53	MP618	Hot Mix Asphalt (HMA)	725	ton	$	$
54	MP626	New 4” Double Yellow Striping	475	lf	$	$
55	MP626	New 12” White Crosswalk Striping	64	lf	$	$
56	MP632	New Concrete Curb and Gutter	1,272	lf	$	$
57	MP633	New 4”Concrete Flatwork	2,580	sf	$	$
58	MP633	New 6”Concrete Flatwork	1,260	sf	$	$

59	MP634	New Pedestrian Access Ramp	1	ea	$	$
60	MP510a	New VERSA LOK Retaining Wall	140	sf	$	$
61	MP810a	Electrical Pull Box	5	ea	$	$
62	MP811a	New Streetlight (SL-1)	2	ea	$	$
62a	MP811b	New Streetlight (Cobra Head)	1	ea	$	$
63	MP812a	New 2" PVC Electrical Conduit	175	lf	$	$

Total Base Bid (Items# 1-63): $_____

***To go directly to Measurement and Payment click here.**

****Unit Price shall contain no more than 2 decimal points (e.g., $0.00)**

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security[1];

B. List of Proposed Subcontractors (see Document 00 43 36 for form);

C. Copy of current business license;

D. Copy of current Utah contractor's license; and

E. E-Verify Form[2] (see Document 00 45 39 for form).

7.02 The following documents shall be submitted upon request and made a condition of this Bid:

A. List of Proposed Suppliers;

B. List of Project References; and

C. Required Bidder Qualification Statement with supporting data, upon request[3].

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

[CONTINUED ON NEXT PAGE]

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[1] *A hard copy version of the Bid Security must also be delivered to the City Recorder (City Office, 55 South State Street within 24 hours of the prescribed bid date and time*).

[2] *Required for those Bidders with 15 or more employees. If not applicable, write "NA" on the form and submit the form as an attachment to the Bid.*

[3] *Standard forms will be provided.*

ARTICLE 9 – BID SUBMITTAL

BIDDER:_____ **Submittal Date:** _____

(Indicate correct name of bidding entity) **License Number:** _____

BY: _____

Signature: _____

Title: _____

ATTEST: _____

Signature: _____

Title: _____

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Address for Giving Notices: _____

_____

Phone: _____

POINT OF CONTACT FOR PROJECT

Name: _____

Title: _____

Email: _____

Phone: _____

Is the Point of Contact authorized to sign documents on behalf of the Bidding Entity? ☐ **YES** ☐ **NO** *(If no, please complete information below)*

AUTHORIZED SIGNATORY

(If different from the point of contact listed above)

Name: _____ **Email:** _____

Title: _____

END OF BID FORM

DOCUMENT 00 43 13
BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:

SURETY *(Name, and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

BID

Bid Due Date:

Description *(350 SOUTH RECONSTRUCTION PROJECT (#210)— Include Location)*:

BOND

Bond Number:

Date:

Penal sum $

(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER **SURETY**

	(Seal)		(Seal)
Bidder's Name and Corporate Seal		Surety's Name and Corporate Seal	
By:		By:	
Signature		Signature (Attach Power of Attorney)	
Print Name		Print Name	
Title		Title	
Attest:		Attest:	
Signature		Signature	
Title		Title	

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

1. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

2. This obligation shall be null and void if:

    2.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

2.2 All Bids are rejected by Owner, or

2.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

3. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

4. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

5. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

6. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

7. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

8. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

9. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

EJCDC® C-430, Bid Bond (Penal Sum Form). Published 2013.
Prepared by the Engineers Joint Contract Documents Committee.

DOCUMENT 00 43 36
LIST OF PROPOSED SUBCONTRACTORS

Subcontractor Company Name and Contact Person	Type of Work to be Performed	Estimated Percentage of Work

Additional information to be provided upon Owner's request.

DOCUMENT 00 45 39
E-VERIFY FORM

COMPLETE IF COMPANY EMPLOYS OVER 15 EMPLOYEES

Private Employer Affidavit of Compliance Pursuant to Utah Code 63G-12-302

By executing this affidavit, the undersigned private employer verifies its compliance with Utah Code 63G-12-302, stating affirmatively that the individual, firm or corporation has registered with and utilizes the federal work authorization program commonly known as E-Verify, or other authorized Status Verification System, in accordance with the applicable provisions and deadlines established in Utah Code. Furthermore, the undersigned private employer hereby attests that its federal work authorization user identification number and date of authorization are as follows:

_____
Federal Tax ID #

_____
Name of Private Employer on File with E-Verify

I hereby declare under penalty of perjury that the foregoing is true and correct. I also acknowledge that the company will indemnify Clearfield City from all fines, penalties, and costs associated with the company's non-compliance with Utah Code 63G-12-302.

_____ _____
Signature of Authorized Officer or Agent Date

_____
Printed Name and Title of Authorized Officer or Agent

STATE OF UTAH)
:SS
County of _____)

On _____, _____, 20___, personally appeared before me

_____ the signer of the within instrument, who duly acknowledged to me that she executed the same.

_____
Notary Public

SECTION 01 11 01
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 **SCOPE**

A. Payment for the various items of the Bid Schedule, shall include all compensation to be received by Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of Owner and public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

B. Contractor shall provide a breakdown of all lump sum bid items into the individual line items relating to the lump sum task, as specified by Engineer, prior to Notice to Proceed.

C. No additional payment will be made for rock excavation.

1.2 **SECTION INCLUDES**

A. Measurement and payment criteria applicable to portions of the Work performed under a unit price payment method.

B. Defect assessment and non-payment for rejected work.

1.3 **AUTHORITY**

A. Engineer will take all measurements and compute quantities accordingly.

B. Assist by providing necessary equipment, workers, and survey personnel as required.

1.4 **UNIT QUANTITIES SPECIFIED**

A. Quantities and measurements indicated in the Contract Documents are for bidding and Contract purposes only. Quantities and measurements supplied or placed in the Work and verified by Engineer shall determine payment.

B. If the actual Work requires more or fewer quantities than those quantities indicated, Contractor shall provide the required quantities at the unit sum/prices contained within the Bid Schedule.

1.5 **MEASUREMENT OF QUANTITIES**

A. Measurements, unless specified otherwise, shall be interpreted to mean:

1. Lump Sum (ls):	Completion of the item as a whole. Measurement of quantities in the field is not required. Payment will be based on the percentage of work completed.

2. Each (ea):	Completion of item individually. Measurement of quantities in the field.
3. Weight (ton):	By Weight: Verification of tonnage shall be documented by delivery tickets supplied by the Contractor to the City. All tickets shall indicate the Owner's name, date, type material, truck number, project location, project number, gross weight and net weight of each material. Delivery tickets are to be turned in with all applicable pay requests. Weigh Scales: Inspected, tested and certified by the applicable State Weights and Measures department within the past year. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle. Metering Devices: Inspected, tested and certified by the applicable State department within the past year. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
4. Length lineal feet (lf):	Measured along the centerline or mean chord in the field, top back of curb for curb and gutter or unless otherwise indicated. For pipe measurements there will be no deduction in length for structures.
5.Volume cubic foot (cf), cubic yard (cy):	Measured by cubic dimension using mean length, width and height or thickness. Measurement shall be based upon the establishment of a known quantity agreed upon by the City (eg. known cubic yardage of a dump truck), use of the same measuring device established throughout the work performed, filled to the same location and counted thereafter. Verification of quantity shall be documented by the Contractor to the City inspection representative. Documentation shall indicate the Owner's name, date, type material excavated, truck number, project location, project number and percent filled based upon full capacity.

6. Area square foot (sf), square yard (sy), Acre (ac):	Measurement by Area: Measured by square dimension using mean length and width or radius.

1.6 **INCIDENTAL WORK**

A. No separate measurement or payment for incidental work.

B. Incidental Work: Any work, materials or equipment that may be reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be supplied by Contractor at no additional cost to Owner whether or not specifically referenced.

C. Damaged Areas: Areas damaged or disturbed by Contractor as a result of Contractor's failure to confine work activities or protect existing improvements shall not be included in the measurement to be eligible for payment.

1.7 **PAYMENT**

A. Unless specified otherwise in the bid item, payment shall include and be full compensation for the following:

1. Mobilization
2. Traffic control
3. Labor
4. Equipment
5. Tools
6. Materials
7. Products
8. Transportation of Materials (including loading, hauling, unloading)
9. Services and incidentals
10. Application or installation to render item complete as shown on Drawings, including those items that may not be specifically stated or shown but that are required to render the item complete
11. Following manufacturer's requirements for installation
12. Protection of existing utilities
13. Coordination with and notification to residents / businesses for construction
14. Coordination with Owner's representative(s)
15. Compliance with all local, State, and Federal safety requirements
16. Disposal and other fees
17. Dust control
18. Cleanup following completion of the item
19. Testing per Specification(s) - includes, but not limited to, compaction, materials, video, and pressure
20. Compaction
21. Overhead and profit
22. Applicable taxes, fees, bonds, and insurance

23. Restoration of damaged improvements
24. Completion of record drawings (to be provided to City Engineer)

B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by Engineer multiplied by the unit sum/price for Work which is incorporated in or made necessary by the Work.

C. Special Inspections associated with a Building Permit (if required) shall be paid for by the City.

1.8 **ACRONYMS**

A. The following is a list of the most used acronyms related to bid items. This is not meant to be an exhaustive list.

1. UTBC Untreated Base Course
2. HMA Hot Mix Asphalt
3. TBC Top back of Curb
4. GB Granular Borrow
5. ADA Americans with Disabilities Act
6. HVAC Heating / Ventilation / Air Conditioning
7. SCADA Supervisory Control and Data Acquisition
8. UPDES Utah Pollutant Discharge Elimination System

1.9 DESCRIPTION OF BID ITEM

M&P Reference	Bid Item	Unit	Payment Includes	Notes
MP001	Mobilization	ls	All costs associated with mobilizing and demobilizing equipment and materials to and from the project site, mobilization, demobilization, establishment of offices, buildings, all OSHA required safety measures, sanitation, and other facilities necessary for the Work, bonds, snow removal, dust control, fees, permits (not specified as paid for elsewhere), administrative services, construction notifications, identifying and marking of construction limits and all costs associated with the Work that are not included in other bid items. Payment shall be as follows: Percent of Original Contract Amount (Completed) --> Percent of Mobilization to be (Paid): 5% --> 50%, 25% --> 25%, 75% --> 25%	
MP003	UPDES Storm Water Compliance (Under One Acre)	ls	Compliance with the requirements of the Utah Pollutant Discharge Elimination System (UPDES) program. For projects less than one acre, all storm water pollution prevention best management practices (BMPs) are required to be completed by the Contractor. Maintenance, stabilization, inspections, and any other work necessary to comply with the program. All BMPs such as storm water gravel inlet sediment filters, silt fencing, erosion control mats, wash down pads, containment pads, dust abatement, regular clean-up, street sweeping, etc. This bid item shall cover all aspects of construction.	*A Storm Water Pollution Prevention Plan (SWPPP), Notice of Intent (NOI), and Notice of Termination (NOT) are not required for this item.*

MP005	Traffic Control	ls	All traffic control needed on the job. Includes state and local permitting, sub-contractor mobilization, barricades, traffic signs, portable construction message boards, flaggers, other channelizing devices, and all other measures needed to channel traffic and to protect construction personnel and the public (vehicular and pedestrian) from harm resulting from any construction activities. Necessary notifications to public transportation and emergency service agencies with appropriate notice. Maintain reasonable continuous vehicular and pedestrian access for local residents/businesses throughout the duration of the project, including any notifications needed to communicate construction activities to the local residents/businesses. Preparation and on-going modification of a traffic control plan.	
MP006	Exploratory Pothole	ea	Preparing for and performing non-destructive exploratory potholing of existing utilities and potential obstructions at locations approved or requested by the Engineer, and reporting findings to the Engineer for possible design adjustments. Excavation, dewatering, backfill, and surface restoration.	*This item does not include potholing for general utility conflict avoidance. Unauthorized potholing will not be paid.*
MP100	Remove Sewer Pipe	lf	Removal and disposal of existing piping of the type, size and class shown on the Drawings. Includes unclassified excavation, cutting of pipe, backfill to grade, compaction, load, haul, lawful disposal of removed piping and other related materials, associated disposal fees, and handling of all active sewer flows.	

MP101	Remove Sewer Manhole	ea	Removal and disposal of existing manhole shown on the Drawings. Includes unclassified excavation, disconnection and protection of existing piping, removal and disposal of concrete collars, backfill to grade, compaction, load, haul, lawful disposal of removed manhole and other related materials, associated disposal fees, and handling of all active sewer flows.	
MP104	Plug Sewer Pipe	ea	Locating of existing pipe, unclassified excavation, cutting of pipe, plugging the end of the existing pipe with a watertight approved plug, backfill to grade, compaction, marking end of pipe (where specified), and handling of all active sewer flows.	

MP105	New Sewer Pipe	lf	Piping of the type, size and class shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the project work, dewatering, trench safety measures, lawful disposal of excess material, backfill to grade, compaction, foundation gravel, pipe bedding, grade controls, all necessary pothole investigation of existing utilities to predetermine any conflicts with other utilities or structures (horizontal or vertical), coordination with Engineer for resolution of predetermined conflicts, high-resolution video inspections after installation and prior to final walkthrough, cleaning of new pipe prior to video inspections, correction of any material or installation-related defect, and restoration of miscellaneous improvements damaged as a result of completing this item.	*No payment will be given for the relaying of pipe that could have been avoided through potholing and conflict resolution with the Engineer, nor for the laying of pipe out of sequence (low elevation to high). Making adjustments to other pipes or structures in conflict will only be allowed if pipe grade adjustments to the new pipe cannot be made.* *Removal of pavement, installation of imported backfill (if required), and installation of new pavement section is paid for under separate items.*

MP107	New Sewer Manhole	ea	Unclassified excavation, dewatering, backfill to grade, compaction, foundation gravel, concrete base section with formed flow lines, manhole sections, cone section or flat lid, adjusting manhole sections to meet design grade, grade rings, ring and cover, manhole steps, sealing of joints, watertight grout, handling of all active sewer flows, connection of all new piping systems to the manhole structure with rubber boot, and restoration of miscellaneous improvements damaged as a result of completing this item.	*Raising to grade with concrete collar paid for under a separate item.*
MP109	Connection of New Sewer Manhole to Existing Pipe	ea	Locating existing sewer main, excavation, dewatering, backfill, compaction, handling of all active sewer flows, adjustments to base and manhole sections to accommodate existing sewer main, forming flowlines, cutting of pipe, rubber boot, and watertight grout.	*New sewer manhole paid for under a separate item.*
MP110	Connection of New Sewer Pipe to Existing Manhole	ea	Locating existing manhole, excavation, dewatering, backfill, compaction, handling of all active sewer flows, core-drilling of manhole, forming flowlines, rubber boot, and watertight grout.	
MP111	Connection of Existing Sewer Lateral to New Pipe	ea	Locating existing sewer lateral, excavation, dewatering, backfill, compaction, handling of all active sewer flows, connection to main, and providing watertight couplers for transition from existing pipe material to new pipe material.	
MP113	Sewer Bypass Pumping	ls	Determining locations requiring bypass pumping to perform the Work, preparation of and submission of bypass pumping plan to Engineer for review and approval, all required pumping equipment and temporary piping from flowline to flowline with adequate capacity to bypass pumping flows, fuel, power, safety measures for the general public, protection measures for all equipment, and notification to and coordination with affected property owners/businesses.	

MP117a	Connection of New Sewer Pipe to Existing Pipe	ea	Locating existing sewer main, excavation, dewatering, backfill, compaction, handling of all active sewer flows, and approved watertight connection to existing main.	
MP200	Remove Storm Drain Pipe	lf	Removal and disposal of existing piping of the type, size and class shown on the Drawings. Includes unclassified excavation, saw-cutting of pipe, backfill to grade, compaction, load, haul, lawful disposal of removed piping and other related materials, associated disposal fees, and handling of all active drainage flows.	
MP201	Remove Storm Drain Structure	ea	Removal and disposal of existing structure (manhole, cleanout, inlet box, combo box, etc.) shown on the Drawings. Includes unclassified excavation, dewatering, disconnection and protection of existing piping, removal and disposal of concrete collars, backfill to grade, compaction, load, haul, lawful disposal of removed structure and other related materials, associated disposal fees, and handling of all active drainage flows.	
MP204	Plug Storm Drain Pipe	ea	Locating of existing pipe, unclassified excavation, cutting of pipe, plugging the end of the existing pipe with a watertight approved plug, backfill to grade, compaction, marking end of pipe (where specified), and handling of all active drainage flows.	

MP205	New Storm Drain Pipe	lf	Piping of the type, size and class shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the project work, dewatering, trench safety measures, lawful disposal of excess material, backfill to grade, compaction, foundation gravel, pipe bedding, grade controls, all necessary pothole investigation of existing utilities to predetermine any conflicts with other utilities or structures (horizontal or vertical), coordination with Engineer for resolution of predetermined conflicts, high-resolution video inspections after installation and prior to final walkthrough, cleaning of new pipe prior to video inspections, correction of any material or installation-related defect, and restoration of miscellaneous improvements damaged as a result of completing this item.	*No payment will be given for the relaying of pipe that could have been avoided through potholing and conflict resolution with the Engineer, nor for the laying of pipe out of sequence (low elevation to high). Making adjustments to other pipes or structures in conflict will only be allowed if pipe grade adjustments to the new pipe cannot be made.* *Removal of pavement, installation of imported backfill (if required), and installation of new pavement section is paid for under separate items.*

MP209	New Storm Drain Junction Box / Combo Box	ea	Construction of precast or cast-in-place concrete structure, unclassified excavation, dewatering, backfill to grade, compaction, foundation gravel, concrete base section with formed flow lines, sections, lid, adjusting sections or forming and pouring reinforced structure to meet design grade, grade rings, ring and cover, frame and grate, access steps, finishing and curing concrete, sealing of joints, watertight grout, handling of all active drainage flows, connection of all new piping systems to the structure (flush with the inside of the walls and grouted smoothly), and restoration of miscellaneous improvements damaged as a result of completing this item.	*Raising to grade with concrete collar will be paid for under a separate item.*
MP210	New Storm Drain Inlet Box	ea	Construction of precast or cast-in-place concrete structure, unclassified excavation, dewatering, backfill to grade, compaction, foundation gravel, concrete base section with formed flow lines where required, sections, top, forming and pouring reinforced structure to meet design grade, forming the top of the box and curb and gutter to receive the new grate, frame, and supports (hood where required), finishing and curing concrete, sealing of joints, watertight grout, handling of all active drainage flows, connection of all new piping systems to the inlet box (flush with the inside of the walls and grouted smoothly), and restoration of miscellaneous improvements damaged as a result of completing this item.	
MP213	Connection of New Storm Drain Structure to Existing Pipe	ea	Locating existing pipe, excavation, dewatering, backfill, compaction, handling of all active drainage flows, adjustments to structure to accommodate existing pipe, modifying and forming the structure base to create a smooth transition between the new and existing flowlines, cutting of pipe, pipe connections flush with the inside of the walls and grouted smoothly with watertight grout.	*New storm drain structure will be paid for under separate item.*

MP224a	Connection of New Storm Drain Pipe to Existing Piper	ea	Locating existing pipe, excavation, dewatering, backfill, compaction, handling of all active drainage flows, adjustments to accommodate existing pipe, cutting of pipe if needed, and connection.	
MP300	Remove Water Line	lf	Removal and disposal of existing piping of the type, size and class shown on the Drawings. Includes unclassified excavation, dewatering, cutting of pipe, removal of thrust blocks where present, backfill to grade, compaction, load, haul, lawful disposal of removed piping and other related materials, associated disposal fees, and handling of all active water flows.	
MP303	Abandon Water Valve	ea	Removal and lawful disposal of existing valve box, lid and concrete collar. Includes locating valve box, unclassified excavation, backfilling of void to grade with approved material, and compaction.	
MP304	Remove Fire Hydrant	ea	Removal and disposal of existing fire hydrant as shown on the Drawings. Includes unclassified excavation, dewatering, disconnection and protection of existing piping, removal of thrust blocks where present, backfill to grade, compaction, load, haul, lawful disposal or salvaging of removed fire hydrant and other related materials, associated disposal fees, handling of all active water flows, and landscape surface restoration (top soil, grassed areas, sprinkler systems, plants, mulch, rock, etc.).	
MP305	Remove Water Meter Box and Assembly	ea	Removal and disposal of existing meter box and assembly complete, as shown on the Drawings. Includes unclassified excavation, dewatering, disconnection and protection of existing piping, locating and shutting off corp stop at main, backfill to grade, compaction, load, haul, lawful disposal or salvaging of meter and other removed materials, associated disposal fees, handling of all active water flows, and landscape surface restoration (top soil, grassed areas, sprinkler systems, plants, mulch, rock, etc.).	

MP310	Plug Abandoned Water Line	ea	Locating of existing pipe, unclassified excavation, dewatering, removal of thrust blocks where present, cutting of pipe, plugging the end of the existing pipe with a leak-proof fitting assembly, backfill to grade, and compaction.	

MP311	New Water Line	lf	Piping of the type, size and class shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the project work, dewatering, trench safety measures, lawful disposal of excess material, backfill to grade, compaction, foundation sand, pipe bedding, fittings (tees, bends, reducers, sleeves, couplings, etc.), corrosion protection (bolts, polywrap, etc. - as specified), marking tape, tracer wire when required, thrust restraint, grade controls, all necessary pothole investigation of existing utilities to predetermine any conflicts with other utilities or structures (horizontal or vertical), coordination with Engineer for resolution of predetermined conflicts, flushing, pressure testing, correction of any material or installation-related defect, disinfection, high chlorine removal, and restoration of miscellaneous improvements damaged as a result of completing this item.	*No payment will be given for the relaying of pipe that could have been avoided through potholing and conflict resolution with the Engineer, nor for the laying of pipe out of sequence. Making adjustments to other pipes or structures in conflict will only be allowed if pipe grade adjustments to the new pipe cannot be made.* *Removal of pavement, installation of imported backfill (if required), and installation of new pavement section is paid for under separate items.*

MP312	Water Line Connection (Cut-In)	ea	Installation of water line connection complete as shown on the Drawings. Includes unclassified excavation, dewatering, backfill to grade, compaction, cutting of pipe, installing tee, couplings and other required pipe and fittings to make a leak-proof connection, foundation sand, corrosion protection, thrust restraint, handling of all active water flows, and restoration of miscellaneous improvements damaged as a result of completing this item.	*Valve near connection and concrete collar is paid for under separate valve item.*
MP314	New Water Line Loop	ea	Looping of water line. Includes piping, bends, fittings, and thrust restraint as specified in the Drawings, excavation, dewatering, trench safety measures, cutting of pipe, lawful disposal of excess material, backfill to grade, compaction, foundation sand, pipe bedding, corrosion protection, tracer wire when required, grade controls, all necessary pothole investigation of existing utilities to determine conflicts, coordination with Engineer for resolution of conflicts, and restoration of miscellaneous improvements damaged as a result of completing this item.	
MP315	New Water Service Line	lf	Piping of the type, size and class shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the project work, dewatering, trench safety measures, lawful disposal of excess material, backfill to grade, compaction, foundation sand, pipe bedding, fittings, couplings, connection to meter assembly, corrosion protection, tracer wire when required, grade controls, all necessary pothole investigation of existing utilities to predetermine any conflicts with other utilities or structures (horizontal or vertical), coordination with Engineer for resolution of predetermined conflicts, flushing, correction of any material or installation-related defect, disinfection, high chlorine removal, and restoration of miscellaneous improvements damaged as a result of completing this item.	*Removal of pavement, installation of imported backfill (if required), and installation of new pavement section is paid for under separate items.*

MP319	New Water Valve	ea	Installation of new water valve of the type, size, and class shown in the Drawings, unclassified excavation, dewatering, backfill to grade, compaction, foundation sand, fittings, corrosion protection, thrust restraint, adjusting to finish grade, and restoration of miscellaneous improvements damaged as a result of completing this item.	*Raising to grade with concrete collar paid for under a separate item.*
MP320	New Fire Hydrant with Auxiliary Valve	ea	Installation of new fire hydrant with main line tee, auxiliary line, and valve as shown on the Drawings. Includes unclassified excavation, dewatering, lawful disposal of excess material, backfill to grade, compaction, foundation sand, valve box and lid, fittings, corrosion protection, thrust restraint, adjusting to final grade, handling of all active water flows, and landscape surface restoration (top soil, grassed areas, sprinkler systems, plants, mulch, rock, etc.).	*Raising auxiliary valve to grade with concrete collar paid for under a separate item.*
MP325a	Remove Meter Vault	ea	Removal and disposal of existing structure shown on the Drawings. Includes unclassified excavation, dewatering, disconnection and protection of existing piping as required, removal and disposal of concrete collars, backfill to grade, compaction, load, haul, lawful disposal of removed structure and other related materials, and associated disposal fees.	
MP500	Clear and Grub Site	ac	Clearing and grubbing of area as shown on the Drawings. Includes removal and lawful disposal of vegetation and organic material including sod, weeds, grasses, bushes, stumps, shrubs and small trees including the root ball; dust control, removal, haul and disposal of any garbage and debris.	*Small trees are defined as 6" or less in diameter as measured at 3' above the adjacent ground surface.*

MP501	Remove Existing Tree	ea	Removal of tree and stump to a depth of not less than 3 feet below the finished grade as shown on the Drawings. Includes lawful disposal of tree branches, roots, limbs, trunk and root ball, backfill, protection of existing utilities (overhead and underground) and restoration of miscellaneous improvements damaged (including sprinkler, topsoil, and sod restoration).	*Greater than 6" in diameter as measured at 3' above the adjacent ground surface. Removal of trees with a diameter of 6" or less shall be included in the clearing and grubbing item.*
MP502	Excavation	ls	Site excavation to grade as shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all water, earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the work. Includes grade controls, excavation, stockpiling, loading, and hauling of on site materials; grading to subgrade or final elevations, compaction, and dust control.	*See Bidding Schedule and/or Drawings for gross cut and fill quantity estimates.*
MP505	Import Trench Backfill	ton	Importing and placement of backfill material in utility trenches as directed by the Engineer. Includes loading and unloading, hauling, stockpiling, backfill to grade, compacting, trench safety measures, and dust control.	

MP600	Saw Cut Asphalt	lf	Saw cutting of existing asphalt up to 6" thick as shown on the Drawings. Includes utility locating and protection, saw cutting, and water.	*Thicknesses greater than 6" shall be paid based on proportional thickness, calculated by dividing the unit price by 6" to get a $/in depth cost, then multiplying by the actual thickness cut.*
MP602	Remove Asphalt	sf	Asphalt removal as shown on the Drawings. Includes removal of existing asphalt including concrete collars where present, loading, haul, and lawful disposal.	*See Bidding Schedule and/or Drawings for approximate thickness.* *Saw cutting is paid for under a separate item.*
MP603	Remove Concrete Flatwork	sf	Concrete flatwork removal as shown on the Drawings. Includes removal of existing concrete, loading, haul, and lawful disposal.	*Saw cutting is paid for under a separate item.*
MP604	Remove Curb and Gutter	lf	Concrete curb and gutter removal as shown on the Drawings. Includes saw cutting, removal of existing curb and gutter sections, loading, haul, and lawful disposal.	
MP604a	Remove Concrete Curb Wall	lf	Concrete curb and gutter removal as shown on the Drawings. Includes saw cutting, removal of existing curb and gutter sections, loading, haul, and lawful disposal.	

MP613	Raise Manhole / Valve / Utility Box / Monument to Grade with Concrete Collar	ea	Raising manholes, valves, boxes and/or monuments to grade as shown on the Drawings. Includes removal and lawful disposal of asphalt and cover material, excavation, cleaning out of any excess material inside manhole, valve, box, or monument; backfill, compaction, saw cutting edge of asphalt for concrete collar, grade rings, replacement of removed items to finished grade, constructing concrete collar, protection, and traffic control until concrete has had suitable time to cure. Monuments to be reestablished by a licensed surveyor including any recordation fees.	
MP616	Granular Borrow (GB)	ton	Importing and placement of granular borrow to the thicknesses listed in the Bidding Schedule and shown on the Drawings. Includes loading and unloading, hauling, stockpiling, grade controls, grading, compaction, and dust control.	
MP617	Untreated Base Course (UTBC)	ton	Importing and placement of untreated base course to the thicknesses listed in the Bidding Schedule and shown on the Drawings. Includes loading and unloading, hauling, stockpiling, grade controls, rough and fine grading, rolling, compaction, and dust control.	*UTBC removed for final paving shall be salvaged to the Owner unless otherwise authorized.*
MP618	Hot Mix Asphalt (HMA)	ton	Importing and placement of hot mix asphalt to the thicknesses listed in the Bidding Schedule and shown on the Drawings. Includes cleaning of areas adjacent to paving prior to placement of asphalt, required tack along the edge of the adjacent asphalt and concrete, fine grading of base material prior to placement of pavement, loading and unloading, hauling, grade controls, providing smooth paving surface and transitions for vehicular traffic, rolling, and compaction.	

MP626	New Traffic Striping	lf	Installation and placement of permanent traffic striping paint (with reflective beads) of the width listed in the Bidding Schedule and shown on the Drawings. Includes installing control points or markings to relocate previous striping, and marking / laying out of striping plan for new striping.	*Includes two applications a minimum of 14 days apart.* *All work must conform to the current edition of the MUTCD Standards.*
MP632	New Concrete Curb and Gutter	lf	Installation and placement of concrete curb and gutter as listed in the Bidding Schedule and shown on the Drawings. Includes excavation, forming, expansion and control joints, fiber reinforcement if required, drop-downs for driveways and pedestrian ramps, flares around inlet boxes, finishing, protection of concrete while curing, curing compound, backfill behind curb, landscape restoration, and repair of any damaged improvements.	*Measured in the field along the top back of curb following construction.* *Engineer must be allowed to inspect curb string line or forms before casting of curb and gutter.* *UTBC is paid for under a separate item.*
MP633	New Concrete Flatwork	sf	Installation and placement of concrete flatwork with thickness as listed in the Bidding Schedule and shown on the Drawings. Includes excavation, forming, expansion and control joints, fiber reinforcement if required, finishing, protection of concrete while curing, curing compound, backfill, landscape restoration, and repair of any damaged improvements.	*UTBC is paid for under a separate item.* *Sidewalk through pedestrian access ramps will be paid for under a separate item.*

MP634	New Concrete Pedestrian Access Ramp	sf	Installation and placement of concrete pedestrian access ramp as listed in the Bidding Schedule and shown on the Drawings. Includes excavation, forming, expansion and control joints, fiber reinforcement if required, compliance with all ADA requirements, truncated dome panel, curb wall at back of ramp if required, finishing, protection of concrete while curing, curing compound, backfill, landscape restoration, and repair of any damaged improvements.	*The curb and gutter will be measured through the pedestrian access ramp area and is not part of this bid item. The pedestrian access ramp includes all concrete in the park strip (if present) and the sidewalk area where it slopes down from sidewalk joint. UTBC is paid for under a separate item.*
MP510a	Structural Block Retaining Wall	sf	Installation and placement of a structural block retaining wall as listed in the Bidding Schedule and shown on the Drawings. Includes design (as provided by the manufacturer and approved by the city), excavation, dewatering, foundation material, grade control, geotextile fabric, geotextile reinforcement, drainage system, backfill, compaction, and installation of retaining wall in accordance with manufacturer's recommendations. Work to include re-grading the RV pad behind the wall.	*Owner to approve style and color of materials prior to ordering. Contractor shall be responsible to coordinate restoration with affected property owners.*

MP801	Relocate Existing Sign	ea	Relocation of existing sign with post(s). Includes protection of sign and post(s) to be relocated, excavation, new concrete foundation(s), backfill, and surface restoration.	*Any damage to existing post(s) will require supplying of new post(s) by Contractor at their cost.*
MP804	Relocate Existing Mailbox	ea	Relocation of existing mailbox complete. Includes protection of mailbox to be relocated, excavation, new foundation, backfill, and surface restoration.	*Any damage to existing mailbox will require like replacement by Contractor at their cost.*
MP807	Relocate Existing Fence	lf	Relocation of existing fence as listed in the Bidding Schedule and shown on the Drawings. Includes protection of existing fence to be relocated, complete fencing relocation to match or exceed original installation quality, wire, fabric, webbing, slats, panels, rails, framing, posts, gates, foundation concrete, aesthetically and structurally sound connection(s) to existing fencing, excavation, backfill, and surface restoration.	*Any damage to existing fence will require like replacement by Contractor at their cost.* *Contractor to coordinate fencing installation with property owner(s) and provide adequate temporary fencing to protect and contain livestock (if present).*

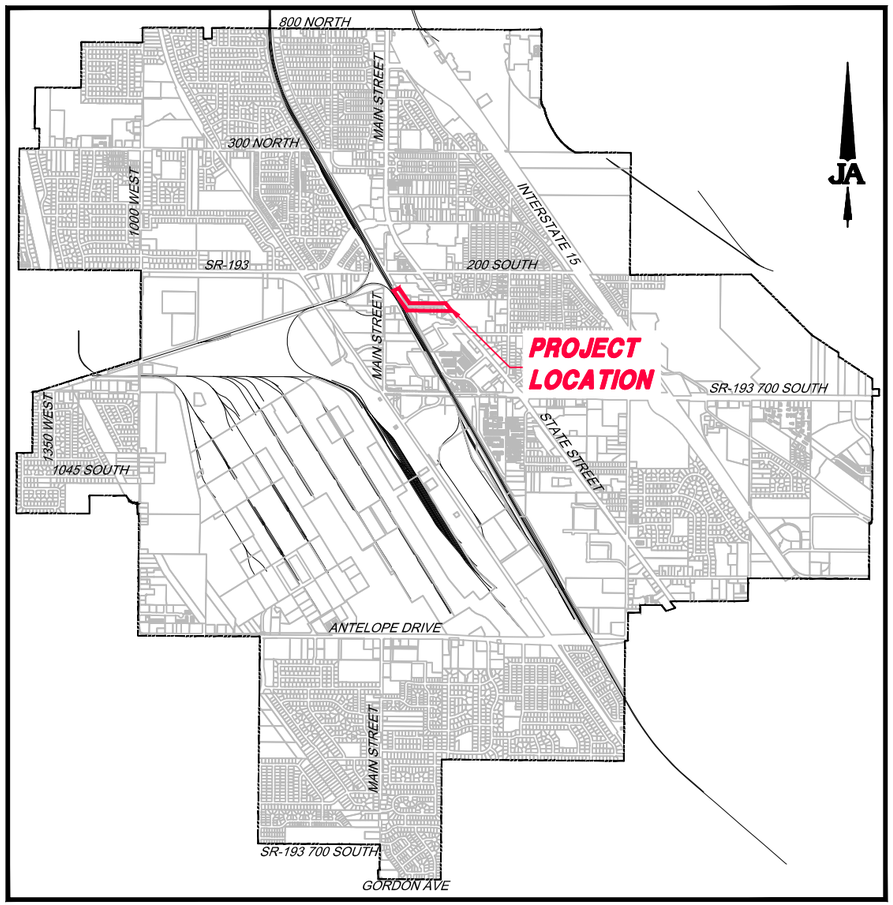
MP810a	Electrical Pull (Junction) Box	ea	Supplying and installation of buried electrical junction box. Includes excavation, foundation material, box installation to grade, electrical conduit termination, and box location coordination with Rocky Mountain Power. Also includes all wiring, fuses, ground rod, and connections necessary for operation of the light.	
MP811a	Streetlight (SL-1)	ea	Streetlight installation of the type listed in the Bidding Schedule and shown on the Drawings. Includes excavation, dewatering, reinforced concrete foundation, grounding rod, concrete finishing, unloading and handling of light pole, installation of light pole, anchor bolts, backfill and cleanup following construction.	*Contractor shall coordinate power source location and connection with Rocky Mountain Power.*
MP811b	Streetlight (Cobra Head)	ea	Streetlight installation of the type listed in the Bidding Schedule and shown on the Drawings. Includes unloading, handling, and installation of light mast arm, tie rods, fixture, wiring, and connections necessary for operation of the light.	*Contractor shall coordinate power source location and connection with Rocky Mountain Power.*

MP812a	Conduit (Open Cut)	lf	Conduit of the type, size and class listed in the Bidding Schedule and shown on the Drawings. No classification of excavated materials shall be made, and excavation shall include the removal and subsequent handling of all earth, shale, loose or cemented gravel, loose rock, solid rock, or other materials of whatever nature excavated or otherwise removed in the performance of the project work, dewatering, trench safety measures, lawful disposal of excess material, backfill to grade, compaction, foundation sand, pipe bedding, fittings, fusing, corrosion protection, marking tape, tracer wire when required, grade controls, all necessary pothole investigation of existing utilities to predetermine any conflicts with other utilities or structures (horizontal or vertical), coordination with Engineer for resolution of predetermined conflicts, cleaning, correction of any material or installation-related defect, and restoration of miscellaneous improvements damaged as a result of completing this item. Includes wiring as required on Sheet SL1.	*Removal of pavement, installation of imported backfill (if required), and installation of new pavement section is paid for under separate items.*

END OF SECTION

CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)



VICINITY MAP

Clearfield City
we've got it made

REGISTERED PROFESSIONAL ENGINEER
5/13/24
No. 10217085
SHANE K.
TAGGART
State of Utah

MAY 2024

JONES & ASSOCIATES
CONSULTING ENGINEERS
6080 Fashion Point Drive
South Ogden, Utah 84403 (801) 476-9767

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GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CLEARFIELD CITY CONSTRUCTION STANDARDS EXCEPT WHERE SPECIFIED OTHERWISE. COPIES OF THE STANDARDS THAT ARE APPLICABLE TO THIS PROJECT ARE CONTAINED AT THE END OF THIS SET OF DRAWINGS. NOT ALL REFERENCED DRAWINGS ARE INCLUDED. CONTRACTOR IS RESPONSIBLE FOR ALL REFERENCED DRAWINGS AS WELL.
2. ANY DAMAGED SIDEWALK, CURB AND GUTTER, OR PEDESTRIAN RAMPS DUE TO NEGLIGENCE BY THE CONTRACTOR SHALL BE REPLACED AT NO COST TO THE CITY. WHERE CURB AND GUTTER OR SIDEWALK IS REMOVED, IT SHALL BE REMOVED TO NEAREST EXISTING JOINT.
3. SAWCUTS MUST BE CLEANED AND A TACK-COAT APPLIED BEFORE ASPHALT PLACEMENT.
4. THE CONTRACTOR SHALL EXAMINE THE DRAWINGS, VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE SITE AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES BETWEEN THE ACTUAL CONDITIONS AND INFORMATION SHOWN ON THE DRAWINGS BEFORE PROCEEDING WITH THE WORK.
5. EXISTING UTILITY LOCATIONS SHOWN MAY NOT BE EXACT AND ALL UTILITIES MAY NOT BE SHOWN. CONTACT BLUE STAKES, (811) PRIOR TO EXCAVATION.
6. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE & COOPERATE WITH ALL UTILITY COMPANIES WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY MANNER AND WITH MINIMUM DISRUPTION OF SERVICE.
7. THE CONTRACTOR SHALL POTHOLE UTILITIES THAT MAY HAVE A POTENTIAL CONFLICT, SUFFICIENTLY IN ADVANCE OF LAYING PIPE AND STRUCTURES TO ALLOW FOR ADJUSTMENTS IN THE PROPOSED DESIGN TO AVOID CONFLICTS.
8. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF ANY REGULATORY AGENCY EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK WHERE APPLICABLE.
9. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES, TYPICAL DETAILS AND SPECIFICATIONS.
10. THE CONTRACTOR SHALL PROVIDE AND BE RESPONSIBLE FOR THE TEMPORARY ERECTION OF BRACING AND SHORING AS REQUIRED FOR STABILITY OF STRUCTURES AND EXCAVATIONS DURING ALL PHASES OF CONSTRUCTION AS PRESCRIBED BY OSHA.
11. PROJECT HORIZONTAL AND VERTICAL DATUM ARE BASED ON A FEILD SURVEY AND SHALL BE USED FOR PROJECT CONTROL. THE PROJECT COORDINATE SYSTEM IS NAD 83 STATE PLANE UTAH NORTH NADV88. INITIAL CONSTRUCTION STAKING WILL BE PROVIDED BY THE OWNER. ANY ADDITIONAL CONSTRUCTION STAKING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONSTRUCTION STAKING SCHEDULING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
12. THE CONTRACTOR SHALL OBTAIN ALL CITY PERMITS. NO FEE WILL BE CHARGED.
13. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL FLAGGING, BARRICADES AND TRAFFIC CONTROL AS MAY BE NECESSARY TO ENSURE SAFETY TO THE GENERAL PUBLIC AND OWN CONSTRUCTION PERSONNEL DURING CONSTRUCTION. A TRAFFIC CONTROL PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE CITY FOR APPROVAL. ONLY APPROVED TRAFFIC CONTROL PLANS MAY BE USED ON THE PROJECT.
14. IF A ROAD CLOSURE IS DESIRED BY THE CONTRACTOR, ALL POSSIBLE CLOSURES MUST BE APPROVED BY THE CITY AND ALL PUBLIC TRANSPORTATION AND EMERGENCY SERVICE AGENCIES NOTIFIED WITH SUFFICIENT ADVANCED NOTICE. THE CONTRACTOR MUST MAINTAIN ACCESS FOR LOCAL TRAFFIC.
15. THE CONTRACTOR SHALL HOLD A VALID UTAH CONTRACTOR'S LICENSE PRIOR TO AND DURING CONSTRUCTION, UNTIL WORK IS COMPLETE.
16. THE CONTRACTOR SHALL MAINTAIN CLEAN CONSTRUCTION AREAS. ALL DEBRIS, RUBBISH AND TRASH MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
17. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ANY EQUIPMENT NECESSARY TO DEWATER EXCAVATIONS.
18. ALL BACKFILL MATERIAL IN CITY STREETS SHALL BE COMPACTED TO A MINIMUM OF 95% DRY DENSITY. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND PLACED IN NON-STRUCTURAL BACKFILL AREAS OR HAULED AWAY. IMPORT GRANULAR BACKFILL MATERIAL SHALL BE REQUIRED IN TRENCH AND ROADWAY AREAS IF PROPER COMPACTION CANNOT BE ACHIEVED WITH NATIVE MATERIAL. ENGINEER OR CITY INSPECTOR MAY REQUIRE IMPORTED GRANULAR BACKFILL AT THEIR DISCRETION.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HANDLING / BYPASSING OF ALL BASE AND STORM FLOWS THROUGH THE CITY'S STORM DRAIN SYSTEM THROUGHOUT CONSTRUCTION.
20. THE CONTRACTOR IS RESPONSIBLE TO ADHERE TO UPDES STORM WATER QUALITY REGULATIONS AND TO DEVELOP AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A SWPPP TEMPLATE CAN BE FOUND AT HTTPS://DOCUMENTS.DEQ.UTAH.GOV/WATER-QUALITY/PERMITS/UPDES/DWQ-2018-006549.PDF THE CONTRACTOR WILL BE RESPONSIBLE FOR FILING THE NOTICE OF INTENT (NOI) AND UPDATING THE SWPPP AS NEEDED THROUGHOUT THE PROJECT. POSSEBLE BMP'S CAN BE FOUND ON SHEET G4.
21. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION CONTROL. THE CONTRACTOR SHALL BE RESPONSIBLE TO PUT IN PLACE AND MAINTAIN ALL BEST MANAGEMENT PRACTICES (BMP's) AS DEEMED NECESSARY TO KEEP A CLEAN WORK SITE AND PREVENT ANY STORM WATER POLLUTION. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO IMMEDIATELY RESOLVE ANY ISSUE/CONCERN MADE KNOW BY THE ENGINEER OR CITY INSPECTOR.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO SWEEP ALL PUBLIC STREETS ADJACENT TO THE PROJECT AS NECESSARY AND AS OFTEN AS IS NEEDED IN ORDER TO KEEP THE PAVEMENT FREE FROM MUD AND DIRT AND KEEP TRACKING OF MATERIAL TO A MINIMUM.
23. THE CONTRACTOR SHALL MEET ALL UTAH STATE DEPARTMENT OF ENVIRONMENTAL QUALITY AND U.S. EPA REQUIREMENTS WITH RESPECT TO THEIR MINIMUM RULES AND REGULATIONS.
24. ALL QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
25. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A SET OF DRAWINGS AT THE JOB SITE FOR THE PURPOSE OF RECORDING ALL ACTUAL MEASUREMENTS AND DETAILS TO BE USED IN THE PREPARATION OF "AS-BUILTS" OR "RECORD" DRAWINGS. FINAL PAYMENT WILL NOT BE RELEASED UNTIL "AS-BUILTS" OR "RECORD" DRAWINGS HAVE BEEN SUBMITTED TO AND ACCEPTED BY THE OWNER AND/OR PROJECT ENGINEER.
26. THE CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES AT LEAST ONE COPY OF THE SIGNED APPROVED PLANS & SPECIFICATIONS, AS WELL AS ALL PERMITS AS REQUIRED TO PERFORM THE WORK.
27. LOOP EXISTING WATER LINES AND SERVICES UNDER STORM DRAIN WHENEVER ELEVATION CONFLICTS OCCUR.
28. CONTRACTOR IS RESPONSIBLE TO MAINTAIN ACCESS TO ALL DRIVEWAYS DURING CONSTRUCTION INCLUDING ANY MATERIAL NECESSARY TO MAINTAIN ACCESS. CONTRACTOR IS RESPONSIBLE TO COORDINATE CONSTRUCTION SCHEDULE AND ANY RELATED IMPACTS WITH RESIDENTS / PROPERTY OWNERS.
29. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND / OR REPLACEMENT OF ANY IMPROVEMENT DAMAGED DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO FENCING, SPRINKLER SYSTEMS, SOD, TOPSOIL, MAILBOXES, CONCRETE (CURB, SIDEWALK, AND DRIVEWAYS), GRAVEL, PLANTERS, AND OTHER VARIOUS LANDSCAPING ELEMENTS, ETC.
30. ALL MATERIALS TO BE REMOVED SHALL BE HAULED AWAY & DISPOSED OF IN A SAFE AND LEGAL MANNER BY THE CONTRACTOR.
31. NEW CULINARY WATERLINES MUST HAVE A MINIMUM COVER OF 4 FEET UNLESS OTHERWISE SPECIFIED ON THE PLANS.
32. PIPELINE TESTING FOR WATER, SEWER, AND STORM DRAIN LINES SHALL CONFORM TO THE SPECIFICATIONS AS INDICATED IN THE SPECIFICATION SECTION OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESSURE TESTING OF WATER LINES, DISINFECTION OF THE WATER LINE, AND HIGH-CHLORINE REMOVAL. THE OWNER SHALL PERFORM BACTERIA AND HIGH-CHLORINE TESTING. THE CONTRACTOR SHALL PROVIDE VIDEO OF ALL SEWER AND STORM DRAIN LINES UPON COMPLETION OF THE PROJECT.
33. THE CONTRACTOR SHALL BE REQUIRED TO FURNISH ALL TEMPORARY WATER, POWER, OR OTHER UTILITIES AS REQUIRED TO COMPLETE CONSTRUCTION OF THE PROJECT AS DETAILED. WATER FOR COMPACTION, FLUSHING AND HYDROSTATIC TESTING IS THE RESPONSIBILITY OF THE CONTRACTOR, BUT AVAILABLE FROM THE CITY.
40. ALL NEW CULINARY WATER LINES MUST BE INSTALLED WITH A 10' MINIMUM HORIZONTAL AND 18" VERTICAL CLEARANCE OVER ALL SEWER MAINS AND LATERALS.
41. SEWER ABANDONMENT NOTE:
    - A. MAINTAIN EXISTING SEWER FLOW AT ALL TIMES.
    - B. TIE ALL EXISTING SEWER LATERALS INTO NEW SEWER MAIN BEFORE ABANDONING THE EXISTING SEWER MAIN.
    - C. ABANDONED SEWER MAINS SHALL BE PROPERLY PLUGGED AT ENDS AND AT OLD LATERAL CONNECTION LOCATIONS.
    - D. REMOVE THE TOP SECTIONS OF ABANDONED SEWER MANHOLES, PLUG MAINLINES INSIDE MANHOLE, AND FILL WITH GRAVEL OR COMPACTED STRUCTURAL FILL
42. WATER ABANDONMENT NOTE:
    - A. ABANDONED WATER MAINS SHALL BE PROPERLY PLUGGED AT ENDS AND OLD CORPORATION STOPS SHALL BE CLOSED.
    - B. UNUSED WATER VALVES SHALL BE ABANDONED IN THE CLOSED POSITION. REMOVE THE TOP SECTION OF THE VALVE BOX AND FILL WITH GRAVEL OR COMPACTED STRUCTURAL FILL MATERIAL.
43. THE LOCATION OF THE EXISTING SEWER LATERALS MAY NOT BE EXACT AND SOME MAY NOT BE SHOWN. WHEN A LATERAL IS FOUND, THE CONTRACTOR IS RESPONSIBLE TO COORDINATE/CONFIRM WITH THE CITY TO DETERMINE IF THE THE LATERAL IS TO BE RECONNECTED TO THE NEW SEWER MAIN OR TO BE ABANDONED.
44. THE CONTRACTOR IS RESPONSIBLE FOR ANY BYPASS PUMPING REQUIRED TO MAINTAIN ACTIVE SEWER FLOWS.
45. ALTHOUGH NOT INCLUDED WITH THE DRAWINGS AND DETAILS CONTAINED IN THIS PLAN SET, THE APWA PLANS AND SPECIFICATIONS (MANUAL OF STANDARD SPECIFICATIONS, AS PUBLISHED BY UTAH LTAP CENTER, UTAH STATE UNIVERSITY, LOGAN, UTAH, CURRENT EDITION, WITH ALL PUBLISHED AMENDMENTS) ARE HEREIN ADOPTED AS PART OF THIS PROJECT AND APPLY TO ANYTHING NOT SPECIFICALLY COVERED BY A DRAWINGS OR SPECIFICATION ASSOCIATED WITH THIS PLAN SET.

LEGEND

	EXISTING	PROPOSED
PROPERTY OR R/W LINE		
GENERAL UTILITY EASEMENT (G.U.E.)		
FENCE	X X	X X
CONTOUR LINE	4250	4250
CULINARY WATER (CLEARFIELD CITY) - PLAN	W	W
CULINARY WATER (CLEARFIELD CITY) - PROFILE		
SANITARY SEWER - PLAN	SS	SS
SANITARY SEWER - PROFILE		
STORM DRAIN LINE - PLAN	SD	SD
STORM DRAIN LINE - PROFILE		
GAS LINE	G	
TELEPHONE / CABLE TV	T	
FIBER OPTIC	FO	
OVERHEAD POWER	OHP	
UNDERGROUND POWER	P	P
OVERHEAD COMMUNICATIONS (TELEPHONE / CABLE TV)	OHC	
POLE & ANCHOR		
IRRIGATION - PLAN	IRR	IRR
IRRIGATION - PROFILE		
OPEN DITCH		
FIRE HYDRANT	W	
WATER VALVE	W	
CURB, GUTTER AND SIDEWALK		

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CLEARFIELD CITY CORPORATION
350 SOUTH RECONSTRUCTION PROJECT (#210)

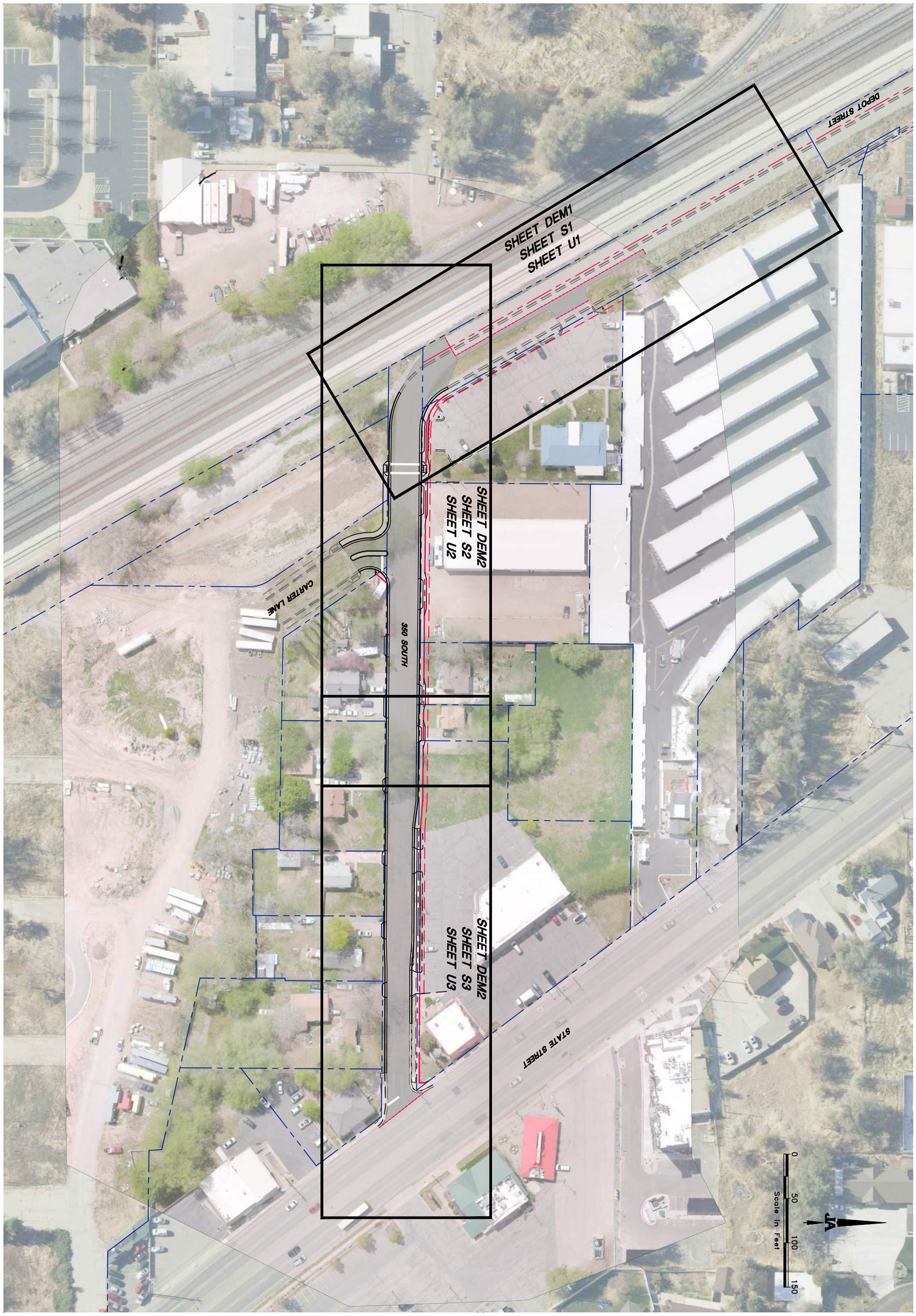
GENERAL NOTES & LEGEND

REV.	DATE	APPR.

BKJ DESIGNED | TWE DRAWN | BKJ CHECKED

SCALE: 24"x36" 11"x17"

SHEET: G2 OF 1 SHEETS



SHEET: G3 OF 1 SHEETS	SCALE: 24"x36" H:1"=50' / 11"x17" H:1"=100'	BKJ DESIGNED / TWE DRAWN / BKJ CHECKED	REV. / DATE / APPR.

CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

OVERALL PROJECT AND SHEET LAYOUT

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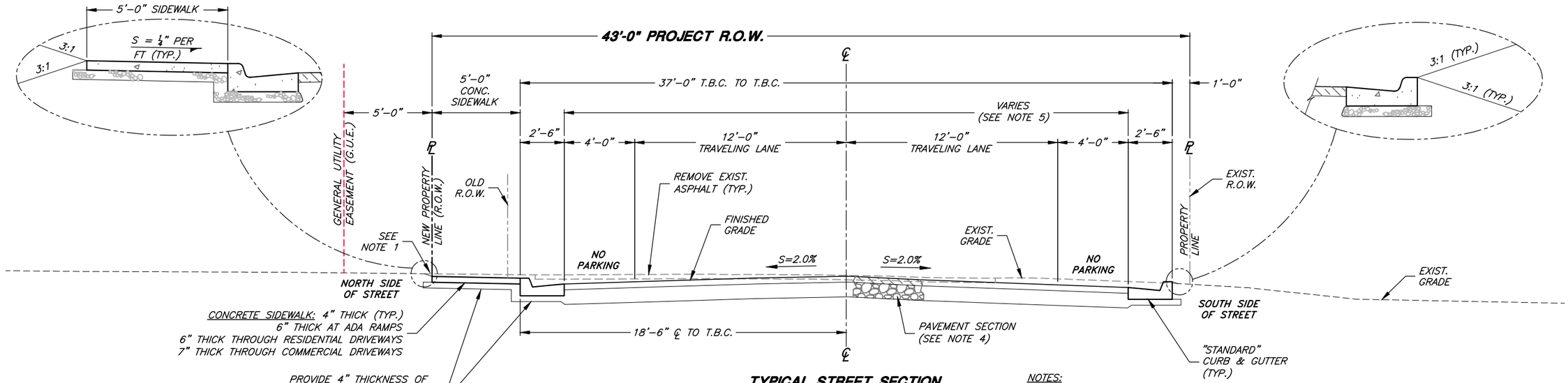


TYPICAL STREET SECTION

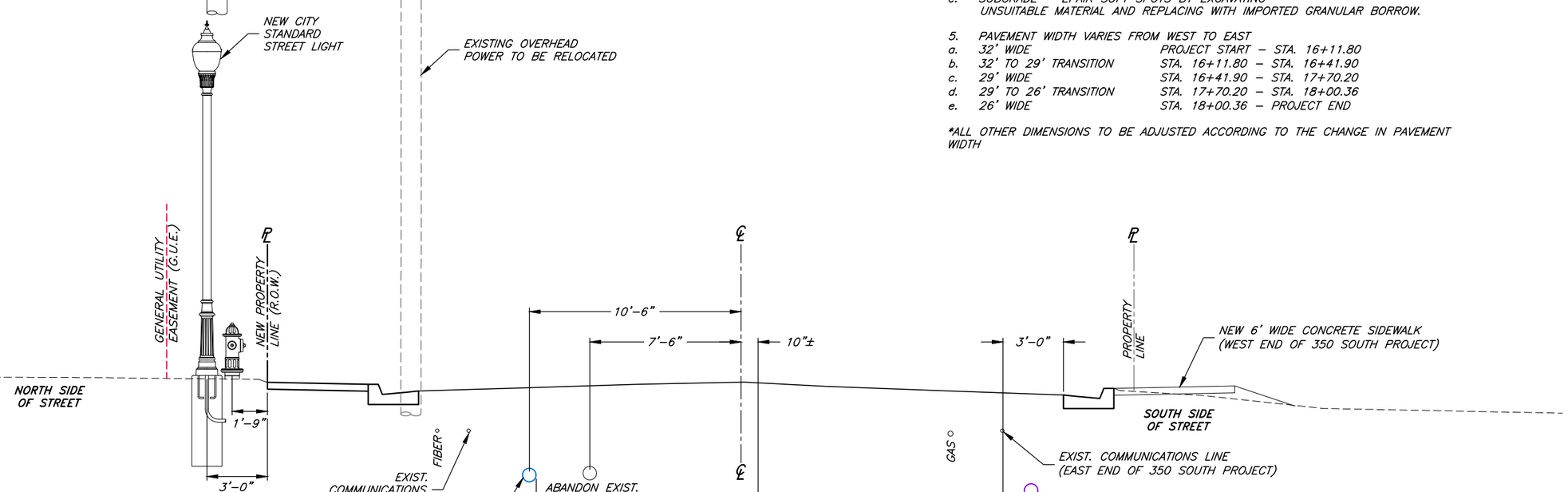
350 SOUTH (STA. 14+50)

NOTES:

1. ALL VEGETATION SHALL BE CLEARED AND GRUBBED PRIOR TO PLACEMENT OF ANY FILL MATERIAL.
2. AFTER VEGETATION IS REMOVED, ALL TOPSOIL IS TO BE STRIPPED AND STOCKPILED.
3. STOCKPILED TOPSOIL TO BE PLACED ON FINISHED SLOPES (4" THICK) OUTSIDE THE ROADWAY AREA AND PLANTED WITH SEED MIXTURE OR SOD
4. NEW PAVEMENT SECTION – FURNISH AND INSTALL:
   a. ASPHALT – 4" THICK HMA
   b. ROADBASE – 10" THICK UTBC
   c. SUBGRADE – EPAIR SOFT SPOTS BY EXCAVATING UNSUITABLE MATERIAL AND REPLACING WITH IMPORTED GRANULAR BORROW.
5. PAVEMENT WIDTH VARIES FROM WEST TO EAST

a.	32' WIDE	PROJECT START – STA. 16+11.80
b.	32' TO 29' TRANSITION	STA. 16+11.80 – STA. 16+41.90
c.	29' WIDE	STA. 16+41.90 – STA. 17+70.20
d.	29' TO 26' TRANSITION	STA. 17+70.20 – STA. 18+00.36
e.	26' WIDE	STA. 18+00.36 – PROJECT END

*ALL OTHER DIMENSIONS TO BE ADJUSTED ACCORDING TO THE CHANGE IN PAVEMENT WIDTH



TYPICAL UTILITY SECTION

350 SOUTH

*ALL EXISTING UTILITY LOCATIONS ARE APPROXIMATE

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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

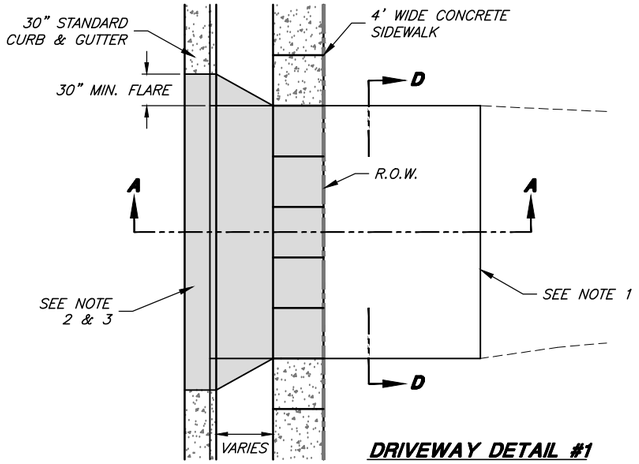
TYPICAL STREET SECTION DETAILS

REV.	DATE	APPR.

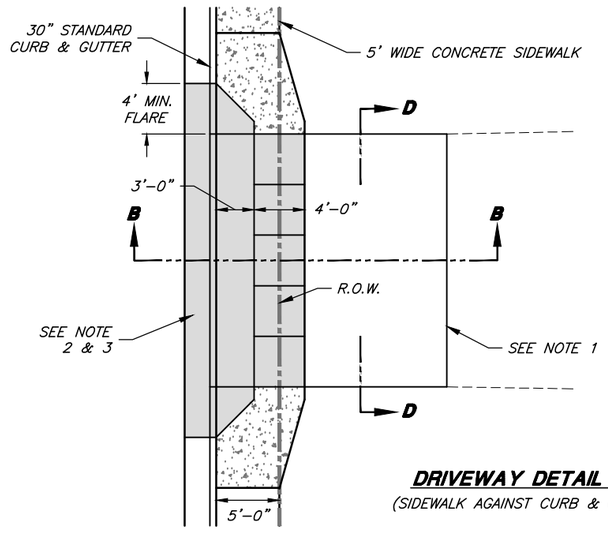
BKJ DESIGNED | BEB DRAWN | BKJ CHECKED

SCALE: 24"x36" N.T.S. 11"x17" N.T.S.

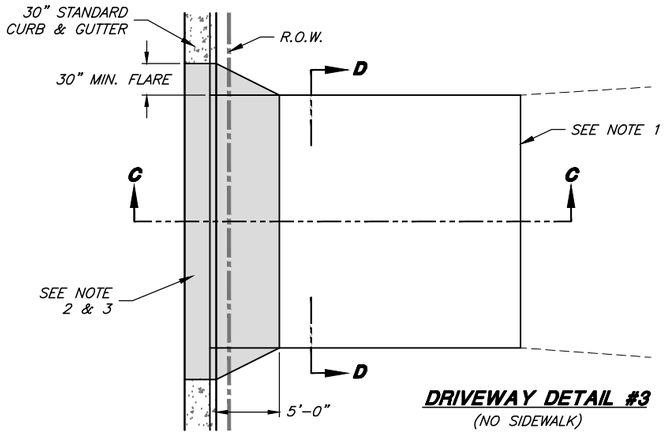
SHEET: G4 OF 1 SHEETS



DRIVEWAY DETAIL #1
(SIDEWALK WITH PARKSTRIP)



DRIVEWAY DETAIL #2
(SIDEWALK AGAINST CURB & GUTTER)



DRIVEWAY DETAIL #3
(NO SIDEWALK)

NOTES:

1. DRIVEWAY MATERIAL TO MATCH EXISTING MATERIAL (e.g. GRAVEL, ASPHALT, OR CONCRETE) AT THE FOLLOWING THICKNESS UNLESS OTHERWISE SPECIFIED:

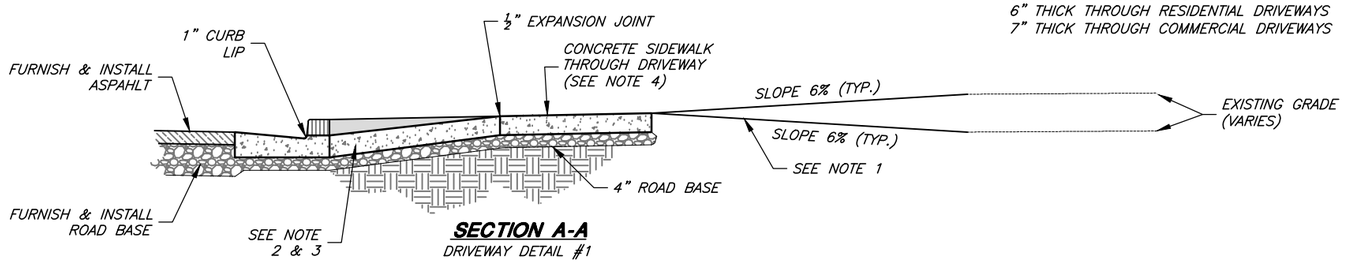
   GRAVEL: 6" THICK GRAVEL/ROAD BASE
   ASPHALT: 3" THICK ASPHALT OVER 4" THICK ROAD BASE
   CONCRETE: 4" THICK CONCRETE OVER 4" THICK ROAD BASE

   ANY ADDITIONAL FILL NEEDED TO MEET THE NEW GRADE SHALL BE NATIVE STRUCTURAL BACKFILL OR IMPORT GRANULAR BACKFILL.

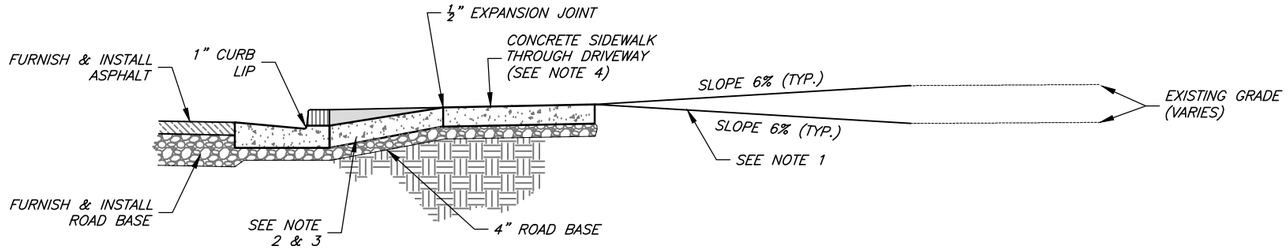
2. WIDTH OF DRIVE APPROACH TO BE AS INDICATED ON THE PROJECT DRAWINGS.

3. ALL DRIVE APPROACHES TO BE CONCRETE (6" THICK), UNLESS OTHERWISE SPECIFIED IN THE PROJECT DRAWINGS.

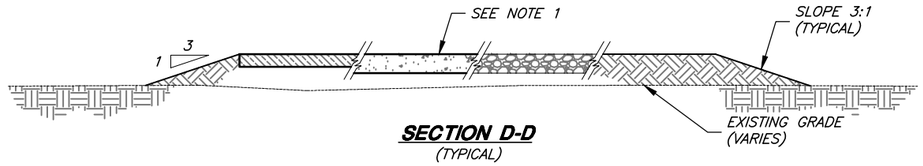
4. CONCRETE SIDEWALK: 4" THICK (TYP.)
   6" THICK AT ADA RAMPS
   6" THICK THROUGH RESIDENTIAL DRIVEWAYS
   7" THICK THROUGH COMMERCIAL DRIVEWAYS



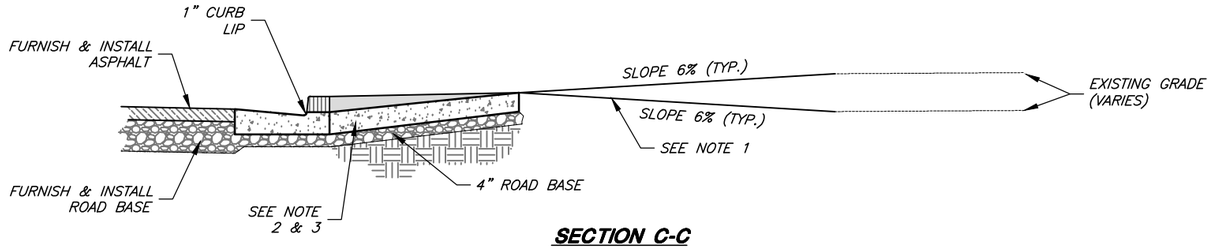
SECTION A-A
DRIVEWAY DETAIL #1



SECTION B-B
DRIVEWAY DETAIL #2



SECTION D-D
(TYPICAL)



SECTION C-C
DRIVEWAY DETAIL #3

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CLEARFIELD CITY CORPORATION
350 SOUTH RECONSTRUCTION PROJECT (#210)

DRIVE APPROACH SECTION DETAILS

REV.	DATE	APPR.

BK/J DESIGNED | BEB DRAWN | BK/J CHECKED

SCALE: 24"x36" N.T.S | 11"x17" N.T.S.

SHEET: G5 OF 1 SHEETS

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

GENERAL NOTES AND PROCEDURES FOR CONSTRUCTION SITE ACTIVITIES:

1. PREVENTATIVE MEASURES SHALL BE TAKEN TO MINIMIZE OR ELIMINATE THE DISCHARGE OF POLLUTED STORM WATER INTO OFFSITE STORM DRAIN FACILITIES. OFFSITE FACILITIES SHALL INCLUDE BUT NOT BE LIMITED TO ROADWAYS, COLLECTION BOXES, CHANNELS, DITCHES, BASINS, LAKES, STREAMS, ETC.

2. SEDIMENT IN STORM WATER IS THE PRIMARY POLLUTANT OF CONCERN FOR CONSTRUCTION ACTIVITIES. OTHER POLLUTANTS INCLUDING HEAVY METALS, NUTRIENTS, OILS, FUELS, AND ADDITIONAL TOXINS (CONSTRUCTION MATERIALS AND CHEMICALS) ARE OFTEN FOUND IN RUNOFF WATERS FROM CONSTRUCTION SITES.

3. PREVENTATIVE MEASURES SHALL BE A PART OF ANY CONSTRUCTION ACTIVITY THAT MAY LEAD TO THE POLLUTION OF OFFSITE STORM WATER. THE FOLLOWING CONSTRUCTION ACTIVITIES SHALL BE ADDRESSED BY THE CONTRACTOR IN ORDER TO MINIMIZE OR ELIMINATE POLLUTED STORM WATER:

A. CLEARING AND GRUBBING CAN EXPOSE SOIL TO EROSION BY WIND AND WATER.

   1. PROTECT AREAS EXPOSED TO WIND WITH EROSION CONTROL BLANKETS OR BY USING DUST ABATEMENT METHODS SUCH AS A WATERING TRUCK.
   2. CREATE BERMS OR SWALES TO DIVERT RUNOFF AWAY FROM AREAS EXPOSED TO EROSION BY WATER.
   3. STABILIZE SOILS THAT ARE UNAVOIDABLE EXPOSED TO RUNOFF SUCH AS RAIN BY USING EROSION CONTROL BLANKETS, TERRACING, OR PLANTING NEW VEGETATION.
   4. BERMING AROUND EXPOSED AREAS CAN HELP CONTAIN RUNOFF AND PREVENT IT FROM ENTERING THE STORM DRAIN SYSTEM.

B. EXCAVATION AND GRADING CAN ALSO EXPOSE SOIL TO EROSION BY WIND AND WATER.

   1. PROTECT AREAS EXPOSED TO WIND AND WATER WITH THE METHODS MENTIONED ABOVE.
   2. DUST CAN BE KNOCKED DOWN DURING EXCAVATION BY APPLYING WATER USING A HOSE AND NOZZLE.

C. HAUL OR TRANSPORT OF MATERIALS OR WASTE TO OFFSITE DISPOSAL AREAS CAN RESULT IN TRACKING MUD ONTO ADJACENT CITY STREETS.

   1. CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE TO MINIMIZE TRACKING DEBRIS ONTO CITY STREETS.
   3. STREETS ARE TO BE SWEPT WHERE TRACKING OCCURS.

D. REFUELING EQUIPMENT AND BASIC EQUIPMENT MAINTENANCE ON SITE CAN ACCIDENTALLY POLLUTE OFFSITE STORM DRAIN FACILITIES IF SPILLS OCCUR.

   1. MAINTAIN EQUIPMENT IN GOOD OPERATING CONDITION. FIX LEAKS OF FUEL, OIL, AND OTHER SUBSTANCES IMMEDIATELY.
   2. WHERE ONSITE FUELING IS PERMITTED, DESIGNATE AN AREA WHERE SPILLS CAN BE CONTAINED. ALWAYS USE SECONDARY CONTAINMENT SUCH AS A DRAIN PAN OR DROP CLOTH TO CATCH SPILLS AND PREVENT SPREADING. THE AREA SHALL NOT BE LOCATED NEAR STREAMS, RIVERS, RESERVOIRS, WELLS, OR ADJACENT TO THE STORM WATER COLLECTION SYSTEM.
   3. KEEP CLEANUP MATERIALS ON HAND TO ABSORB SPILLS. EDUCATE PERSONNEL ON PREVENTION AND CLEAN-UP TECHNIQUES. CLEAN UP SPILLS IMMEDIATELY AND REMEDY CAUSE.
   4. EXCAVATE AND DISPOSE OF CONTAMINATED SOILS AS HAZARDOUS WASTE. CONTACT STATE AND LOCAL OFFICIALS FOR ANY SPILL OF REPORTABLE QUANTITY.

E. ON SITE EQUIPMENT OR VEHICLE WASH DOWN IS ONLY TO BE USED TO REMOVE SEDIMENT BUILD UP ON MACHINERY.

F. FORMING, PLACING AND POURING CONCRETE CAN BE A SOURCE OF POLLUTION TO THE STORM DRAIN SYSTEM.

   1. OILS AND RELEASE AGENTS FOR CONCRETE FORMS SHOULD ONLY BE USED AS RECOMMENDED BY THE MANUFACTURER. DO NOT PERMIT THESE TO ENTER THE STORM DRAIN SYSTEM, ESPECIALLY STREAMS, LAKES AND RESERVOIRS.
   2. USE A DESIGNATED AREA FOR CONCRETE WASHOUT WHERE OFFSITE WASHOUT IS NOT POSSIBLE. THIS AREA MUST PROVIDE CONTAINMENT OF WASHOUT MATERIALS AND PREVENT THEM FROM ENTERING INTO THE STORM DRAIN SYSTEM, ESPECIALLY STREAMS, LAKES AND RESERVOIRS.
   3. TRAIN PERSONNEL ABOUT PROPER CONCRETE WASTE MANAGEMENT PROCEDURES.

G. PAINTS, SOLVENTS AND CLEANERS CAN BE A SOURCE OF POLLUTION.

   1. TRAIN PERSONNEL ON THE PROPER STORAGE AND HANDLING OF THESE MATERIALS. EDUCATE THEM ON PREVENTION AND CLEAN-UP TECHNIQUES. KEEP CONTAINERS CLOSED AND OUT OF THE WAY WHEN NOT IN USE.
   2. ALWAYS USE SECONDARY CONTAINMENT SUCH AS A DROP CLOTH TO CATCH SPILLS AND PREVENT SPREADING.
   3. THE LOCATION FOR CLEANING STATIONS SHALL NOT BE NEAR STREAMS, RIVERS, RESERVOIRS, WELLS, OR ADJACENT TO THE STORM WATER COLLECTION SYSTEM. THIS AREA MUST PROVIDE CONTAINMENT OF WASHOUT MATERIALS AND PREVENT THEM FROM ENTERING INTO THE STORM DRAIN SYSTEM. FOLLOW THE MANUFACTURER'S RECOMMENDATIONS WHEN USING ANY PRODUCT.
   4. KEEP CLEANUP MATERIALS ON HAND TO ABSORB SPILLS. CLEAN UP SPILLS IMMEDIATELY AND REMEDY CAUSE.
   5. EXCAVATE AND DISPOSE OF CONTAMINATED SOILS AS HAZARDOUS WASTE. CONTACT STATE AND LOCAL OFFICIALS FOR ANY SPILL OF REPORTABLE QUANTITY.

H. EXCESSIVE USE OF LANDSCAPING FERTILIZERS, NUTRIENTS, CHEMICALS AND PESTICIDES CAN LEAD TO UNNECESSARY POLLUTION.

   1. ONLY USE THE REQUIRED OR MINIMUM AMOUNTS OF THESE MATERIALS. ALWAYS FOLLOW MANUFACTURER'S RECOMMENDATIONS.
   2. MINIMIZE IRRIGATION RUNOFF BY NOT OVER WATERING FERTILIZED OR TREATED LANDSCAPE AREAS.
   3. CONSTRUCTION DEBRIS AND OTHER WASTE MATERIALS CAN ENTER THE STORM DRAIN SYSTEM WHEN NOT DISPOSED OF PROPERLY.
   4. PROVIDE ADEQUATE AND CONVENIENT TRASH RECEPTACLES AROUND THE CONSTRUCTION SITE.
   5. KEEP TRASH CONTAINERS COVERED.
   6. EMPTY CONTAINERS IN A TIMELY MANNER TO PREVENT SPILLING OVER.

I. ON-SITE STORM DRAIN INLETS CAN PERMIT SEDIMENTS TO ENTER OFFSITE STORM DRAIN FACILITIES.

   1. INLETS SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION TO PREVENT BACKFILL MATERIAL FROM ENTERING PIPES AND BOXES.
   2. WHERE ON-SITE COLLECTION BOXES ARE LIKELY TO COLLECT WATER CONTAINING SEDIMENTS, A FILTERING SYSTEM SHALL BE CONSTRUCTED OVER OR AROUND THE INLET GRATE TO TRAP SEDIMENTS AND ALLOW THEM TO SETTLE OUT BEFORE THE WATER ENTERS THE STORM DRAIN SYSTEM.

4. ALL PREVENTATIVE MEASURES DESIGNED TO ELIMINATE OR MINIMIZE POLLUTION ENTERING THE STORM DRAIN SYSTEM SHALL BE MAINTAINED AND INSPECTED REGULARLY BY THE CONTRACTOR. INSPECTION SHOULD ALSO BE PLANNED BEFORE AND AFTER STORM EVENTS TO VERIFY THAT THESE MEASURES ARE WORKING PROPERLY. REPORT OF INSPECTIONS SHOULD BE MAINTAINED AT THE JOB SITE.

A. WHEN PREVENTATIVE MEASURES ARE FOUND TO BE INADEQUATE THEY ARE TO BE BROUGHT TO THE ATTENTION OF THE CITY. ALTERATIONS TO THE STORM WATER POLLUTION PREVENTION PLAN MAY BE REQUIRED.

B. WHEN A POSSIBLE POLLUTION SOURCE HAS BEEN OVERLOOKED, IT SHALL BE BROUGHT TO THE ATTENTION OF THE CITY. ADDITIONAL PREVENTATIVE MEASURES MAY BE INCORPORATED INTO THE STORM WATER POLLUTION PREVENTION PLAN.

5. THE CITY SHALL ALSO CONDUCT PERIODIC INSPECTIONS TO VERIFY THAT THE SITE COMPLIES TO ALL APPLICABLE STANDARDS AND TO CONFIRM THAT THE STORM WATER POLLUTION PREVENTION PLAN IS BEING IMPLEMENTED.

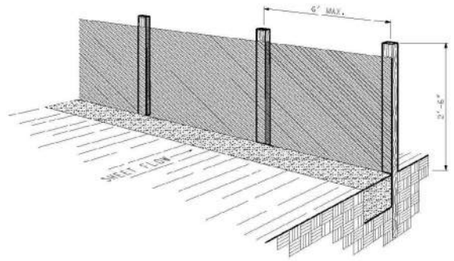
6. ALL REPORTABLE RELEASES OF ANY POLLUTANT SHALL BE DOCUMENTED BY THE CONTRACTOR AND PROMPTLY BROUGHT TO THE ATTENTION OF THE CITY. REPORTABLE RELEASES ARE DEFINED BY TITLE 40 OF THE CODE OF FEDERAL REGULATIONS (CFR), PART 117, SECTION 3 OR TITLE 40, PART 302, SECTION 4.

7. IF THERE IS A VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN, IT SHALL BE REMEDIED IMMEDIATELY AND BROUGHT TO THE ATTENTION OF THE CITY. ALL VIOLATIONS SHALL BE DOCUMENTED PROPERLY.

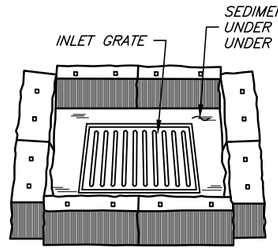
8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO TRAIN AND FAMILIARIZE ALL PERSONNEL ON THE CONSTRUCTION SITE WITH RESPECT TO THE STORM WATER POLLUTION PREVENTION PLAN. BY LAW THE CONTRACTOR SHALL KEEP A COPY OF THE PLAN ON SITE AND MAKE IT AVAILABLE UPON REQUEST TO A REPRESENTATIVE OF THE REGIONAL WATER BOARD OR OTHER RELATED AGENCIES.

9. ALL DISCHARGES INTO THE STORM WATER SYSTEM MUST COMPLY WITH THE REGULATIONS ESTABLISHED BY CITY, COUNTY, STATE, FEDERAL AND OTHER RELATED AGENCIES.

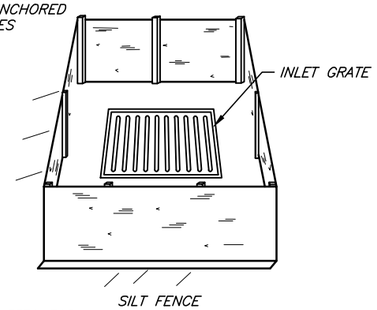
10. HAZARDOUS OR TOXIC WASTE SHALL BE DISPOSED OF PROPERLY. REGULATIONS RELATED TO THE PROPER HANDLING AND DISPOSAL OF HAZARDOUS OR TOXIC WASTE ARE NOT COVERED IN THIS PLAN.



PERSPECTIVE VIEW



STRAW BALE BARRIER

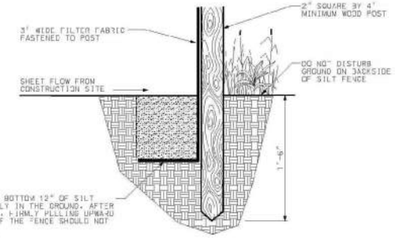


SILT FENCE

SEE INDIVIDUAL BMP INFORMATION SHEETS FOR INSTRUCTIONS FOR CONSTRUCTION OF STRAW BALE BARRIER & SILT FENCE

INLET PROTECTION (IP)

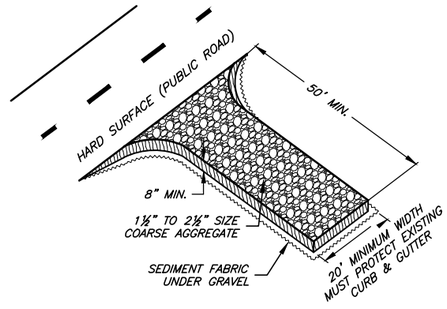
NOT TO SCALE



SECTION

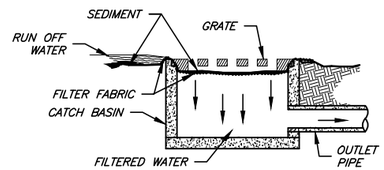
SILT FENCE

NOT TO SCALE



VEHICLE TRACKING CONTROL PAD

NOT TO SCALE



NOTE:

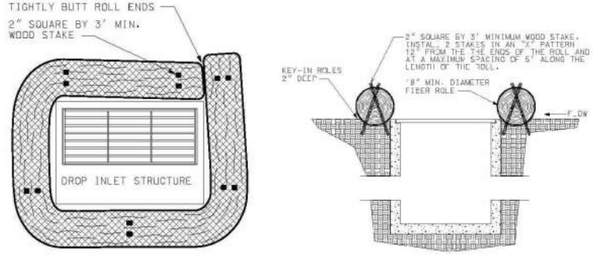
THE CONTRACTOR SHALL PROTECT INLETS FROM SEDIMENT UNTIL THE SITE HAS BEEN STABILIZED

INLET SEDIMENT FILTER

NOT TO SCALE

NOTES:

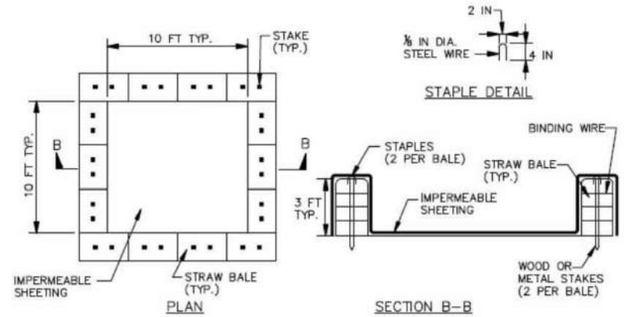
1. KEY-IN FIBER ROLLS 2" DEEP AROUND THE PERIMETER OF THE DROP INLET STRUCTURE AND STAKE AS SHOWN.
2. OVERLAP THE ENDS OF THE FIBER ROLL AT LEAST 18".
3. IN MEDIAN AREAS, CONSTRUCT SO THAT THE TOPS OF THE ROLLS ARE NOT HIGHER THAN THE ADJACENT ROADWAY.
4. MAINTAIN A PROPERLY FUNCTIONING FIBER LOG BARRIER THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS CONTRIBUTING TO THE INLET HAVE BEEN PAVED OR VEGETATED.
5. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA APPROVED BY THE ENGINEER.



PLAN SECTION

FIBER ROLL INLET PROTECTION

NOT TO SCALE



PLAN SECTION B-B

NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

CONCRETE WASHOUT AREA

NOT TO SCALE

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South Ogden, Utah 84403
ph - (801) 476-9767 fx - (801)476-9768

CLEARFIELD CITY CORPORATION
350 SOUTH RECONSTRUCTION PROJECT (#210)

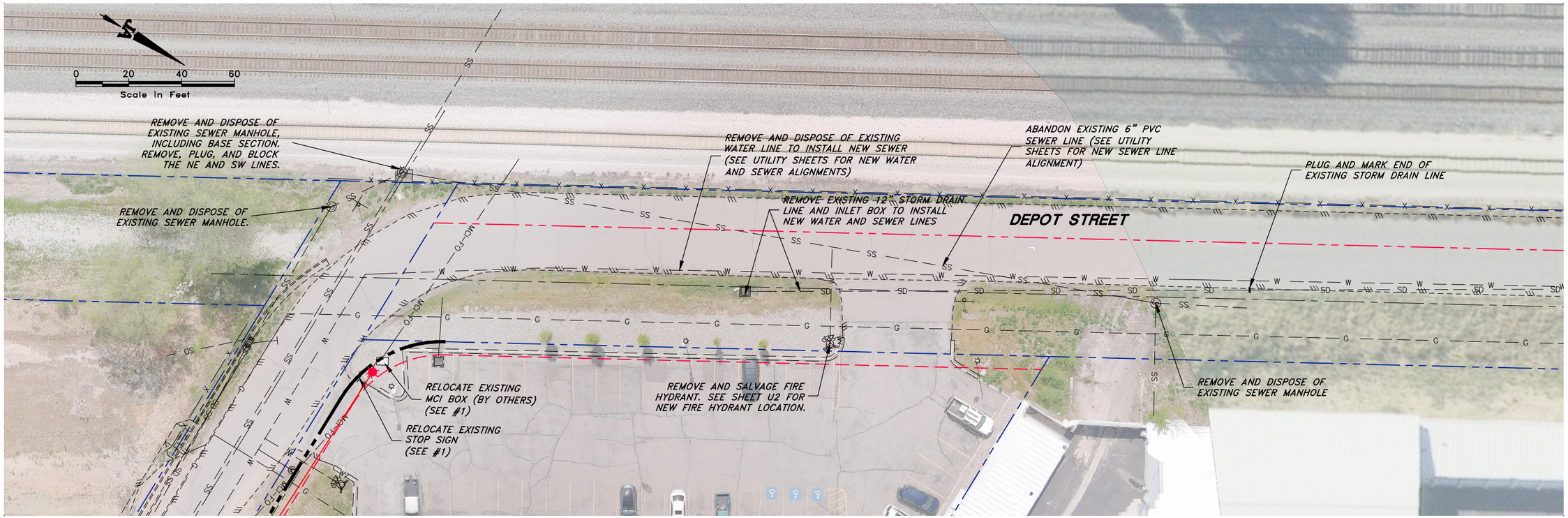
POSSIBLE SWPPP NOTES AND DETAILS

REV.	DATE	APPR.

SKT DESIGNED | TWE DRAWN | SKT CHECKED

SCALE: 24"x36" H:1"=20' V:1"=4" | 11"x17" H:1"=40' V:1"=8"

SHEET: G6 OF 1 SHEETS



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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

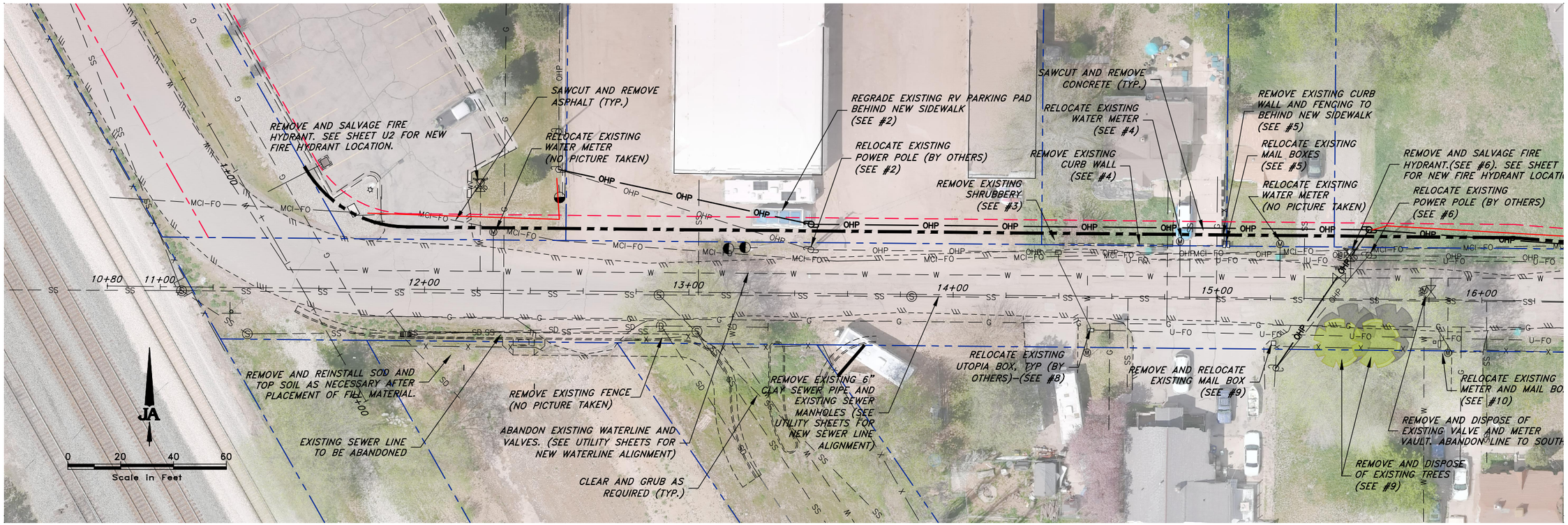
DEMOLITION AND RELOCATION PLAN

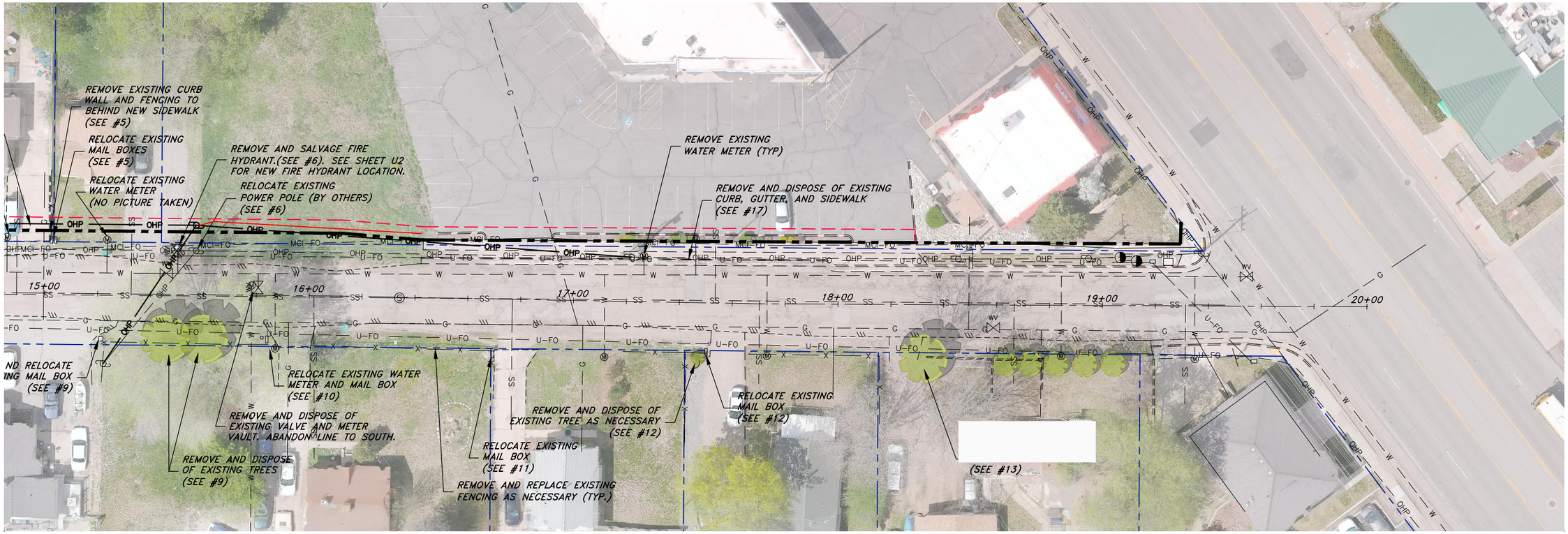
REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20'
11"x17" H:1"=40'

SHEET:
DEM1
OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

DEMOLITION AND RELOCATION PLAN

REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE: 24"x36" H:1"=20'
11"x17" H:1"=40'

SHEET: DEM2
OF 1 SHEETS

PICTURE #1

PICTURE #2

PICTURE #3

PICTURE #4

PICTURE #5

PICTURE #6

PICTURE #7

PICTURE #8

PICTURE #9

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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

DEMOLITION AND RELOCATION PLAN - PICTURES SHEET 1

REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE: 24"x36" H:1"=20'
11"x17" H:1"=40'

SHEET: DEM3
OF 1 SHEETS

PICTURE #10

PICTURE #11

PICTURE #12

PICTURE #13

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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

DEMOLITION AND RELOCATION PLAN - PICTURES SHEET 2

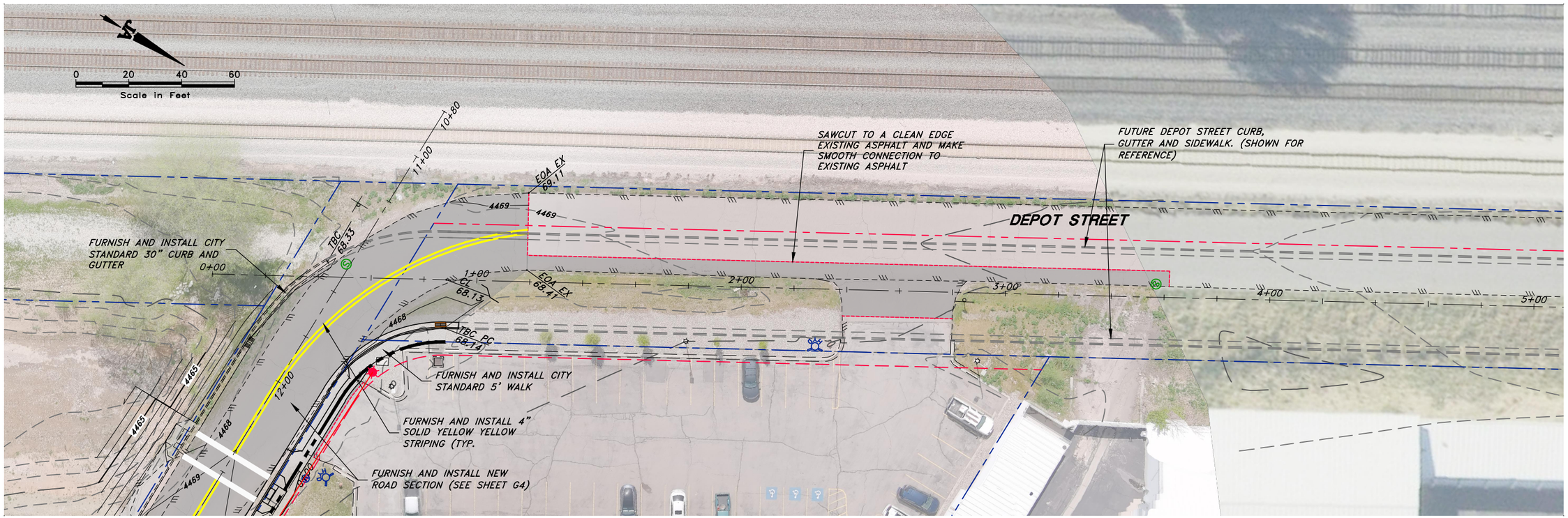
REV.	DATE	APPR.

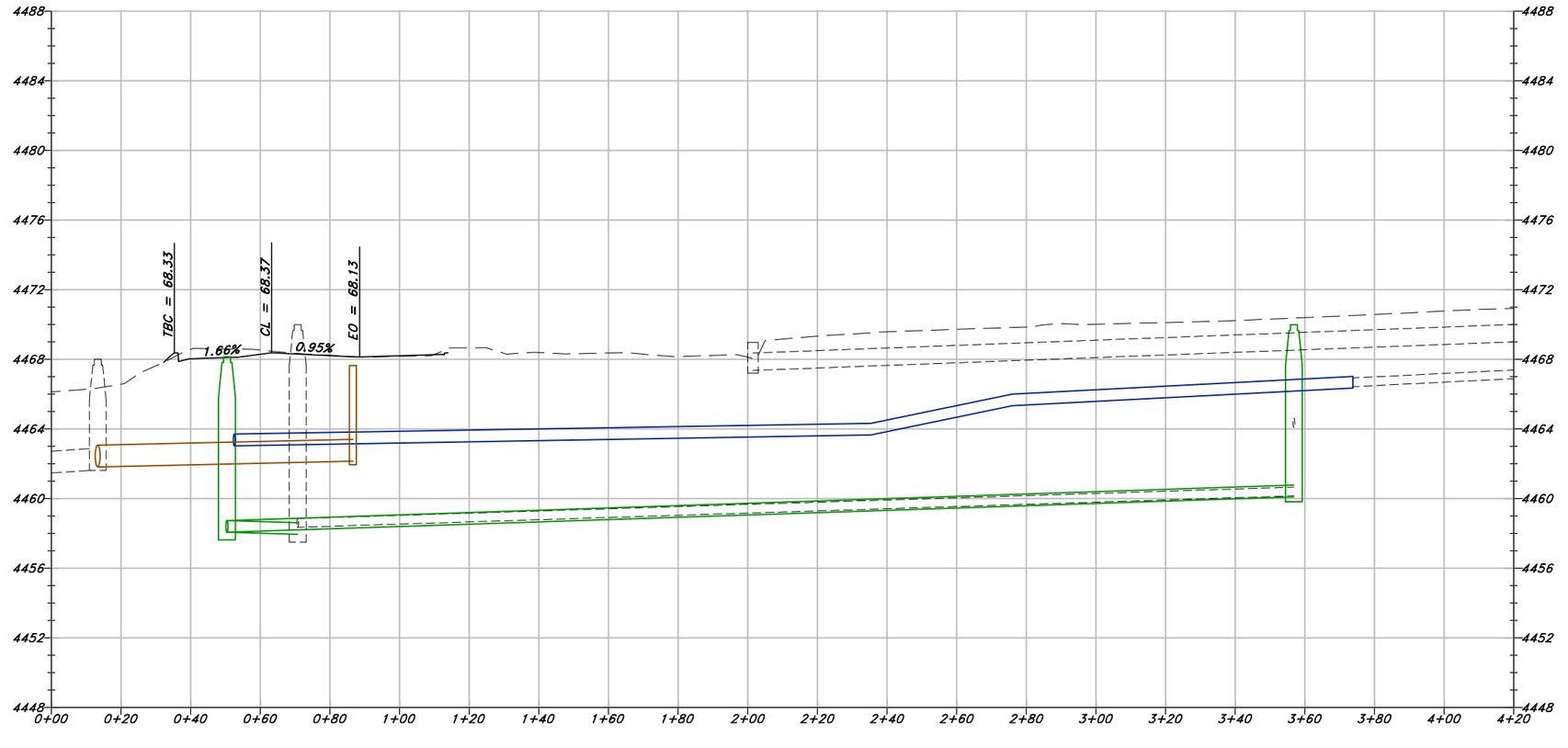
BKJ DESIGNED | TWE DRAWN | BKJ CHECKED

SCALE: 24"x36" H:1"=20' 11"x17" H:1"=40'

SHEET: DEM4

OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

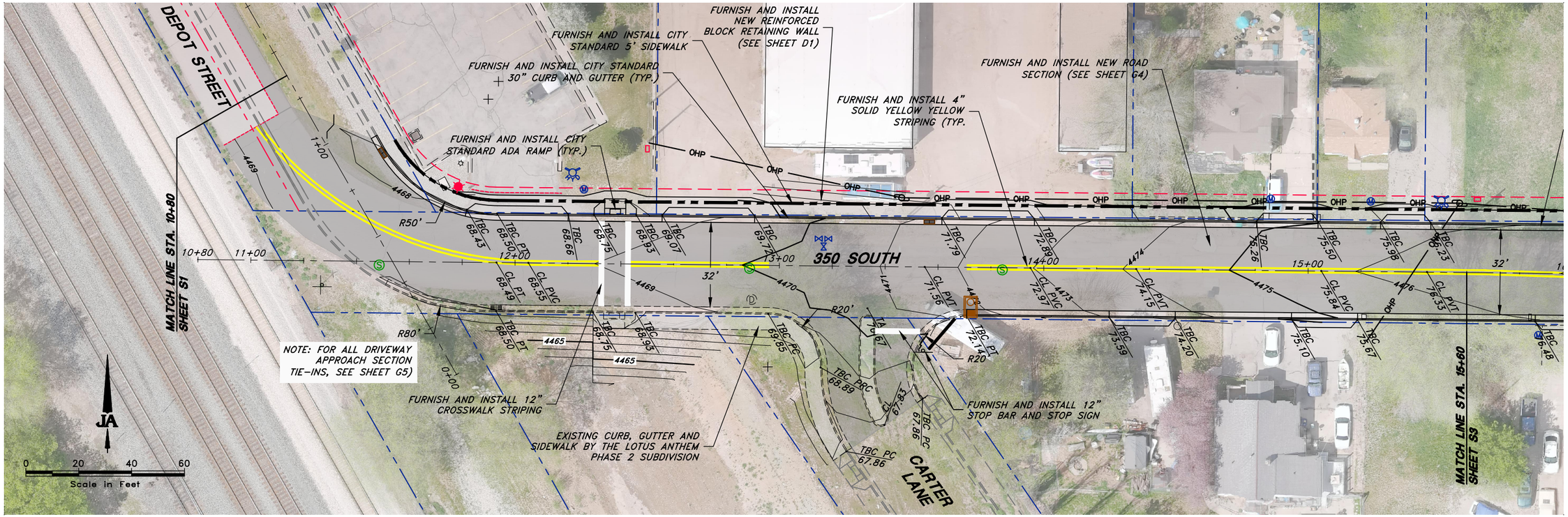
SURFACE - PLAN AND PROFILE STA. 8+00 TO 10+80

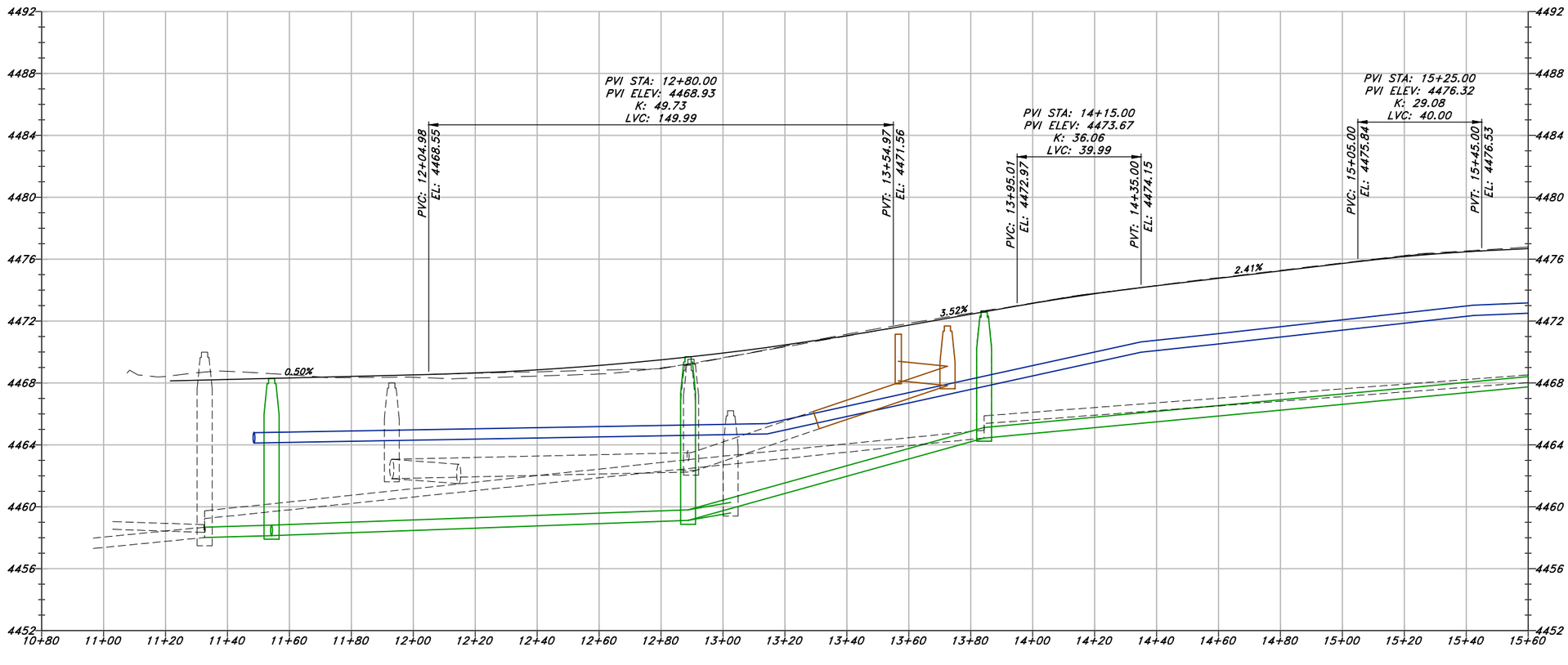
REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20' V:1"=4'
11"x17" H:1"=40' V:1"=8'

SHEET:
S1
OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

SURFACE - PLAN AND PROFILE STA. 10+80 TO 15+60

REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
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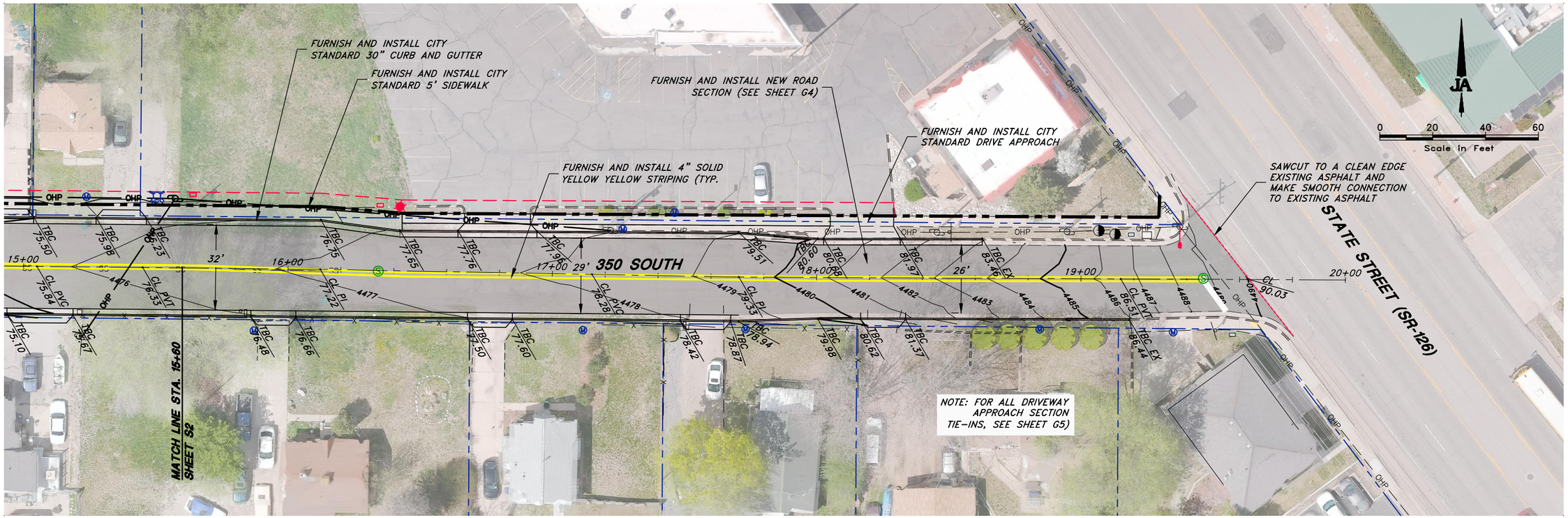
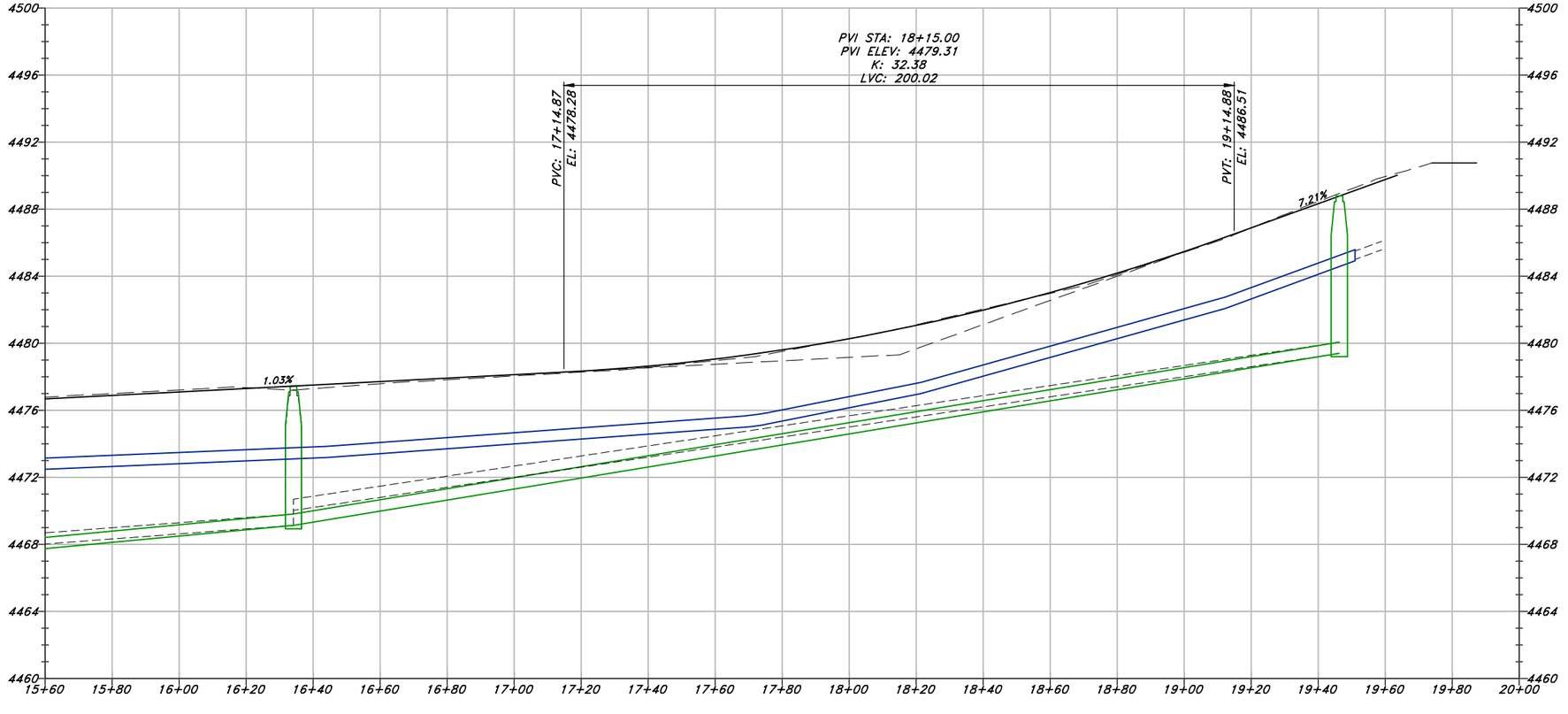
11"x17" H:1"=40' V:1"=8'

SHEET:
S2
OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

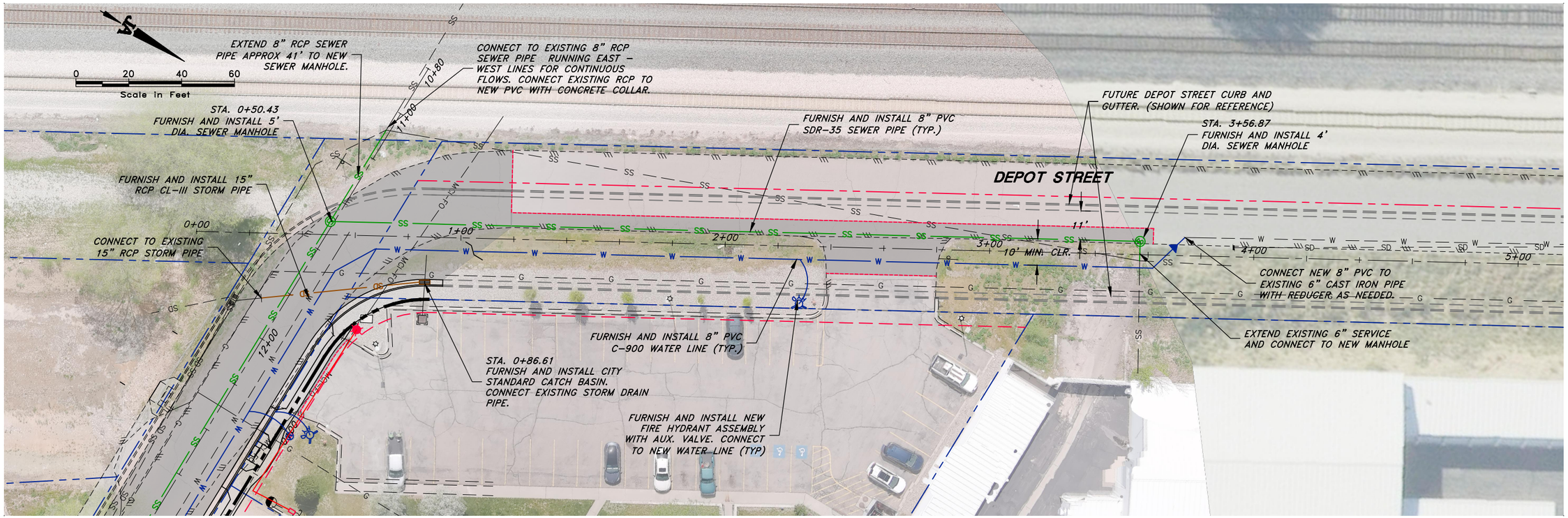
SURFACE - PLAN AND PROFILE STA. 15+60 TO 20+00

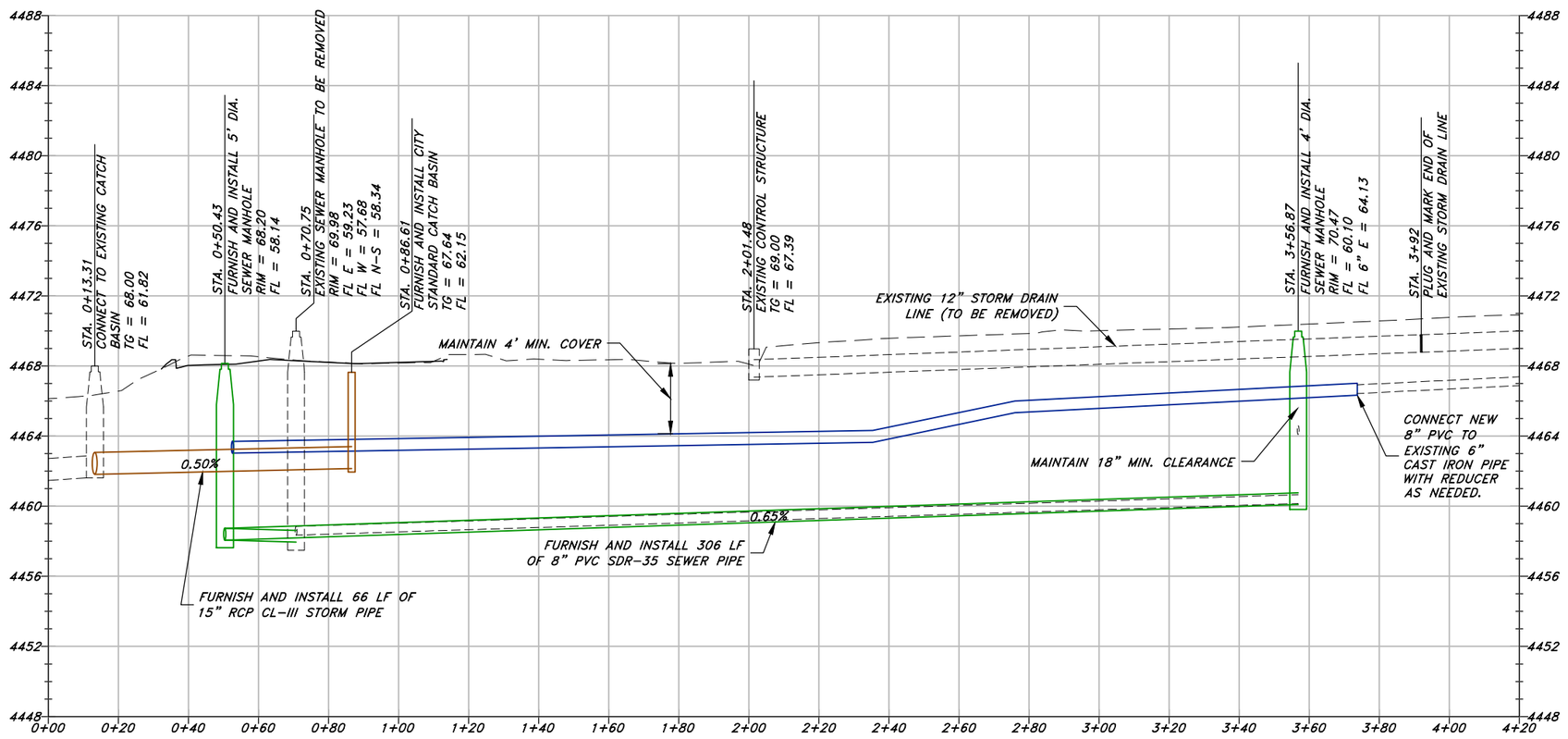
REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20' V:1"=4'
11"x17" H:1"=40' V:1"=8'

SHEET:
S3
OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

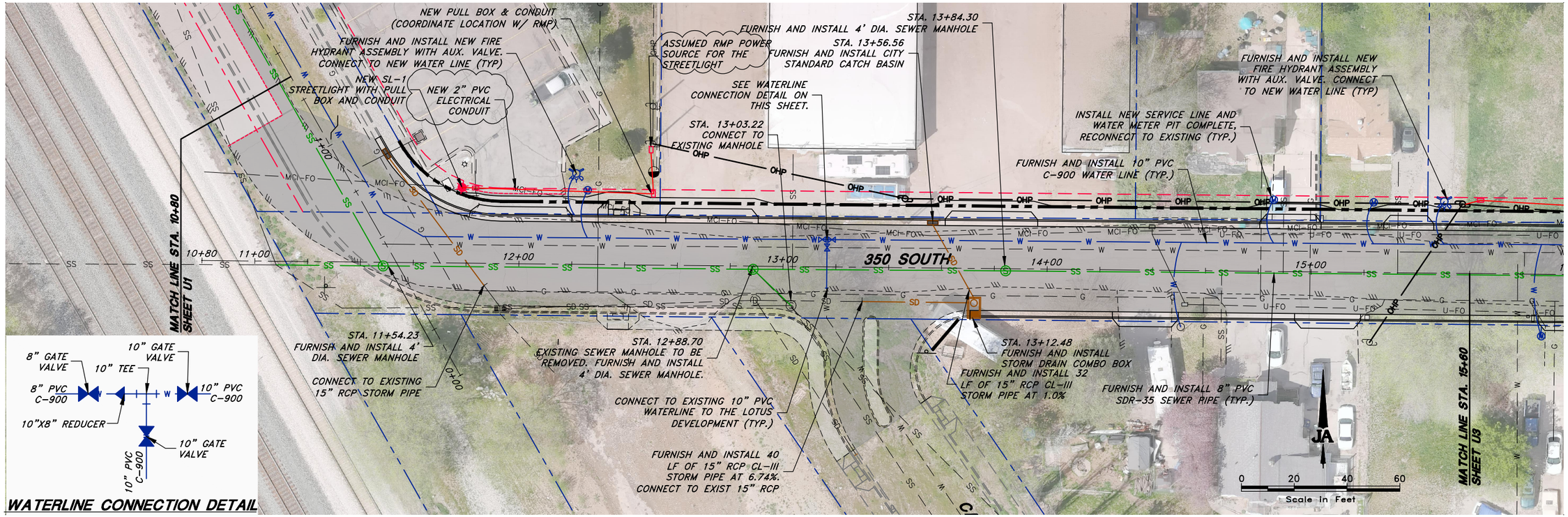
UTILITY - PLAN AND PROFILE STA. 8+00 TO 10+80

REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

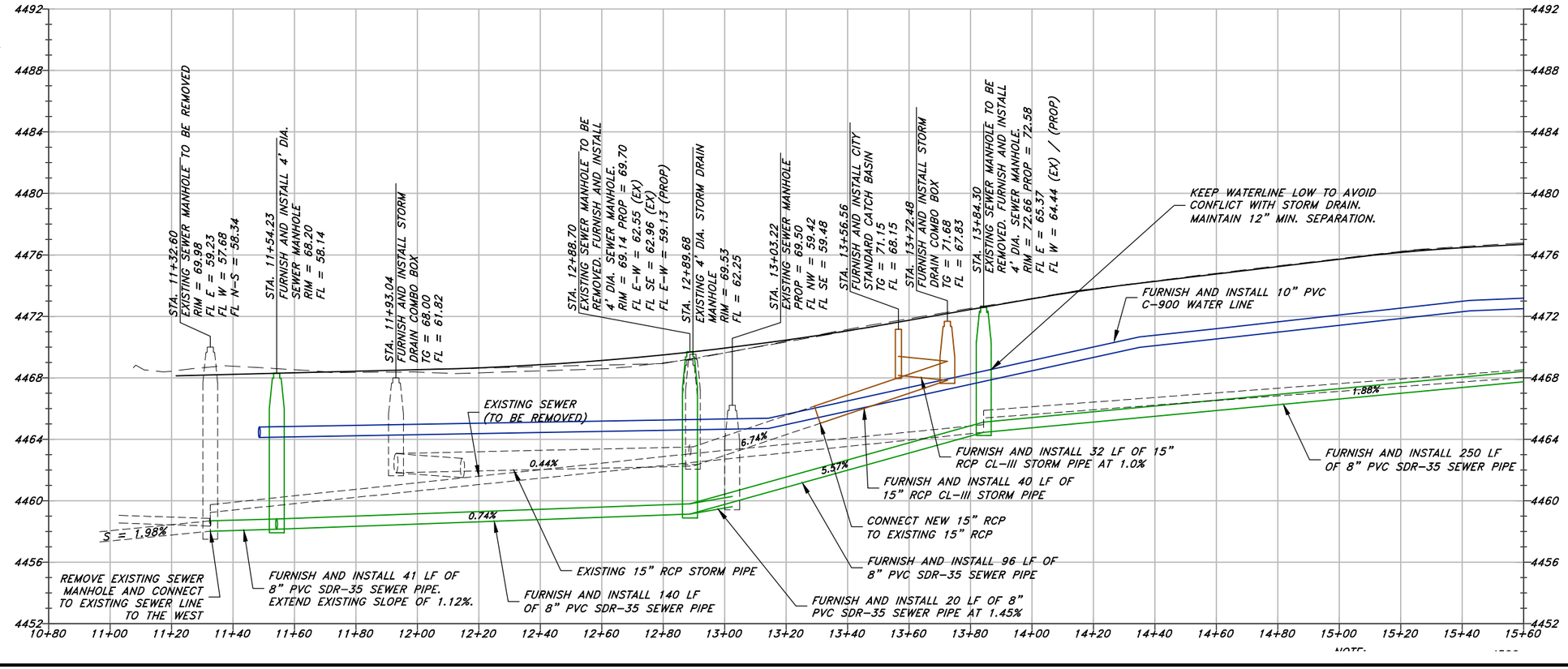
SCALE: 24"x36" H:1"=20' V:1"=4' 11"x17" H:1"=40' V:1"=8'

SHEET: U1 OF 1 SHEETS



WATERLINE CONNECTION DETAIL

NOTE:
THERE IS AN OLD ABANDONED IRRIGATION LINE SOMEWHERE IN 350 SOUTH, BUT LOCATION IS UNKNOWN.



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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

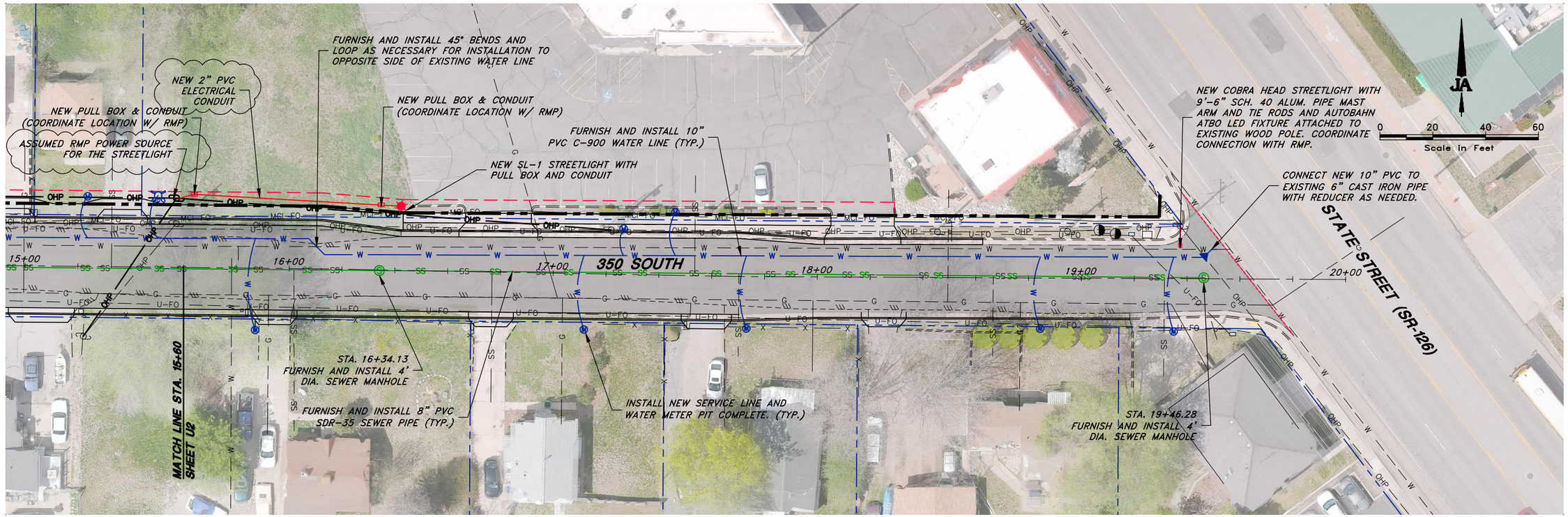
UTILITY - PLAN AND PROFILE STA. 10+80 TO 15+60

REV.	DATE	APPR.

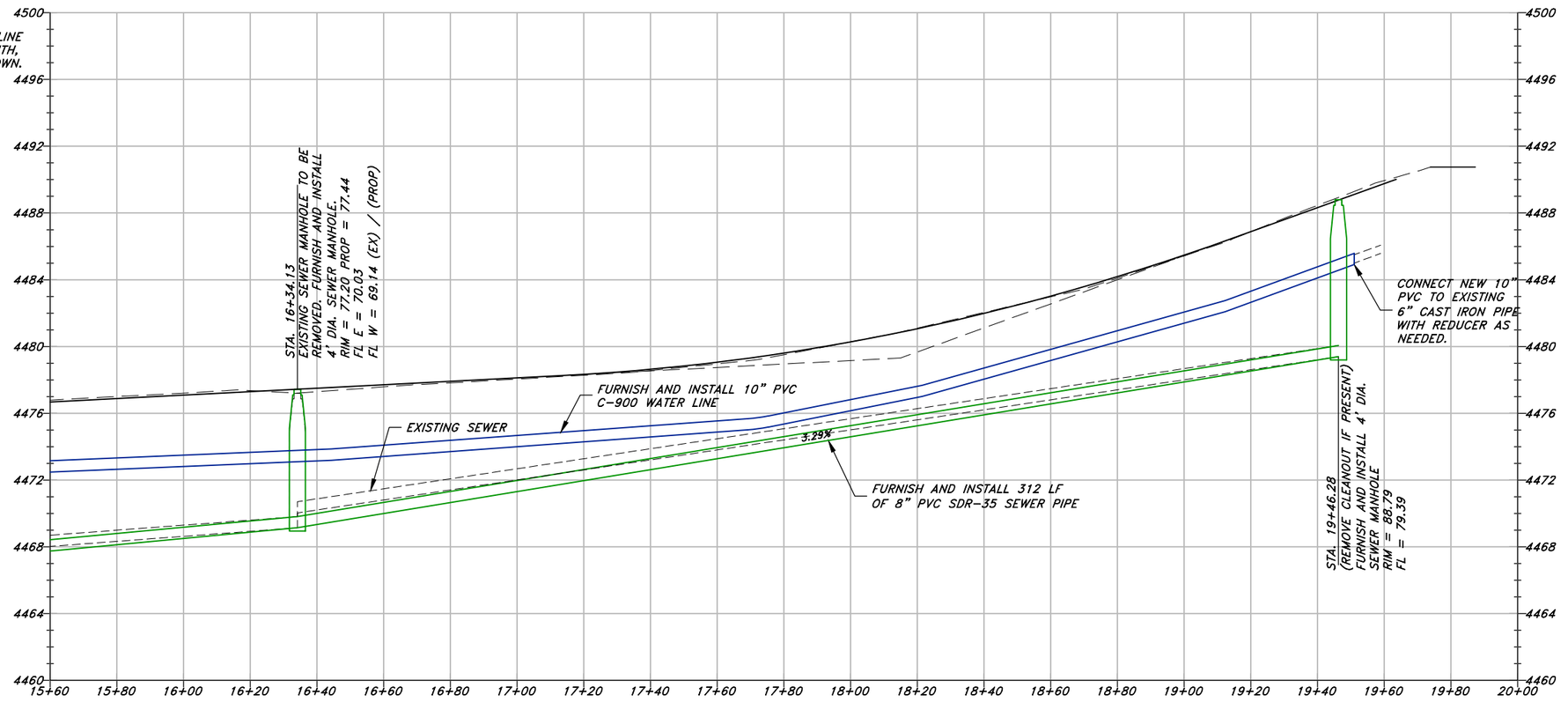
BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20' V:1"=4'
11"x17" H:1"=40' V:1"=8'

SHEET: U2
OF 1 SHEETS



NOTE:
THERE IS AN OLD ABANDONED IRRIGATION LINE SOMEWHERE IN 350 SOUTH, BUT LOCATION IS UNKNOWN.



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CLEARFIELD CITY CORPORATION
350 SOUTH RECONSTRUCTION PROJECT (#210)

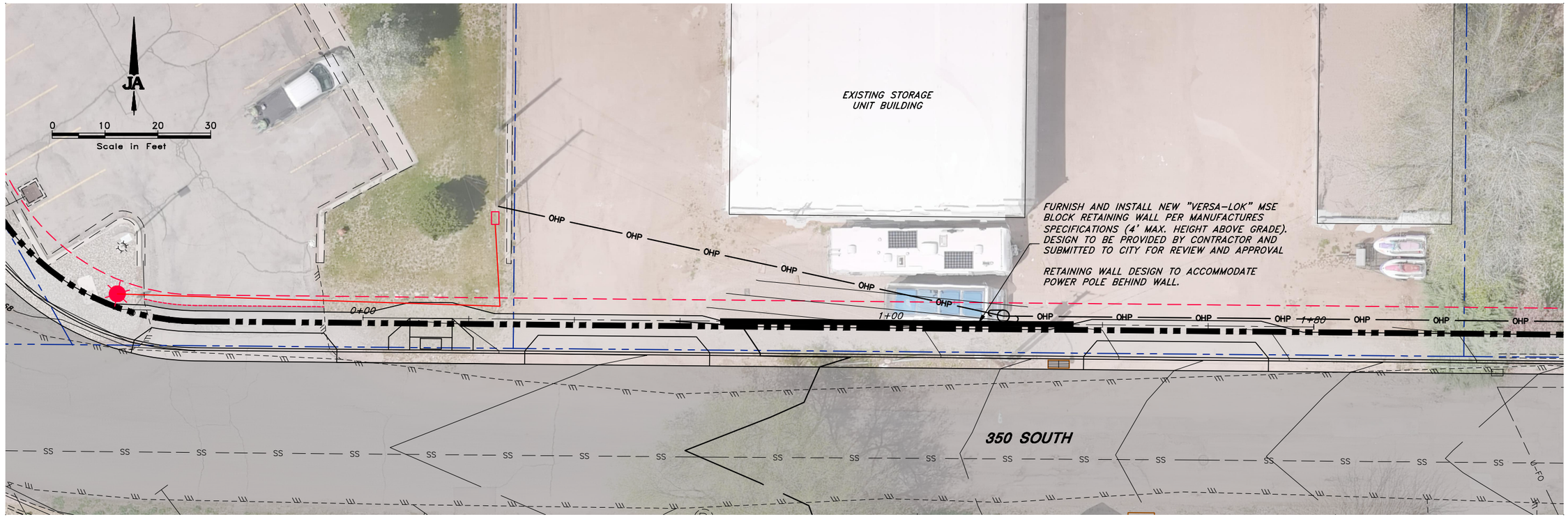
UTILITY - PLAN AND PROFILE STA. 15+60 TO 20+00

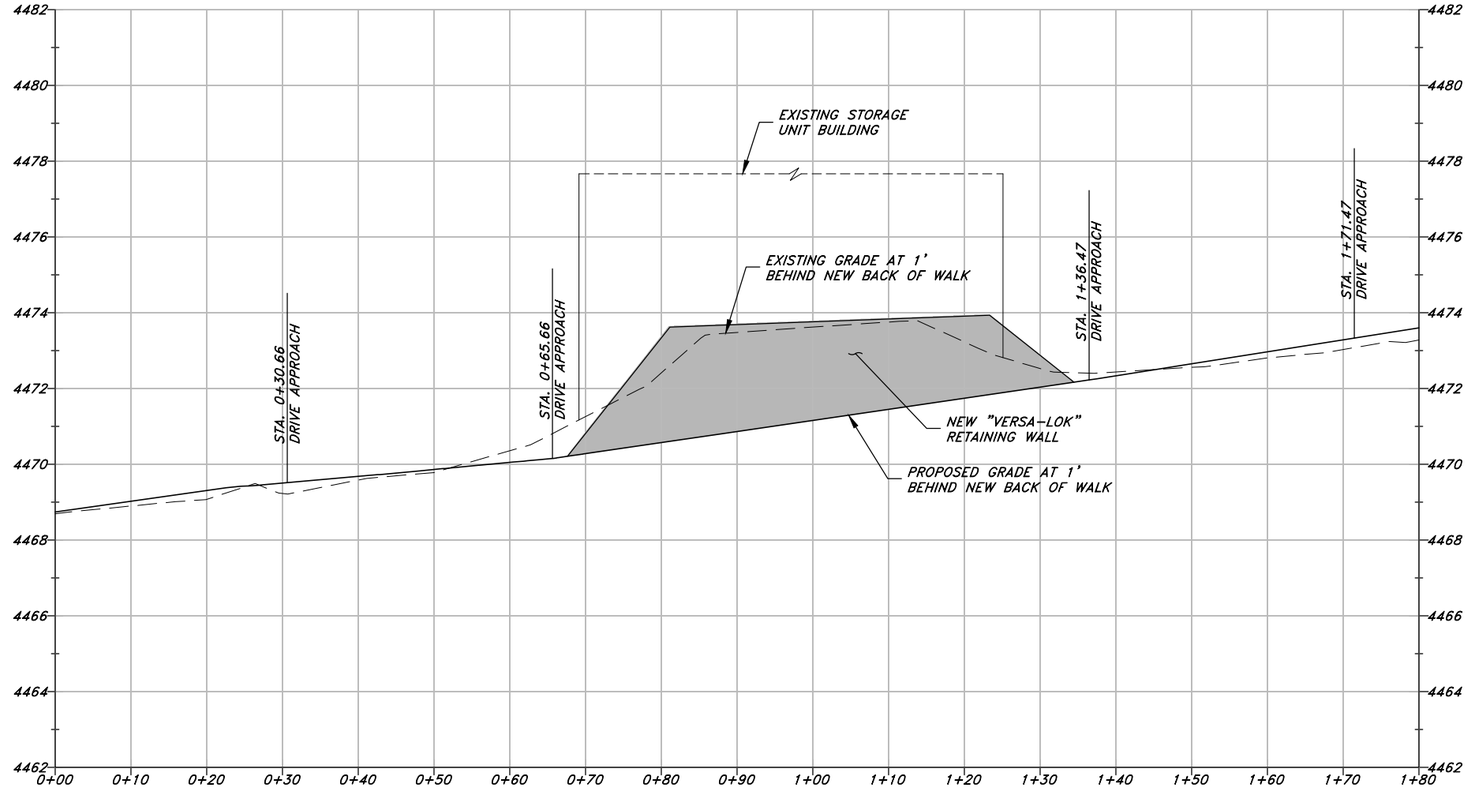
REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20' V:1"=4'
11"x17" H:1"=40' V:1"=8'

SHEET:
U3
OF 1 SHEETS





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CLEARFIELD CITY CORPORATION

350 SOUTH RECONSTRUCTION PROJECT (#210)

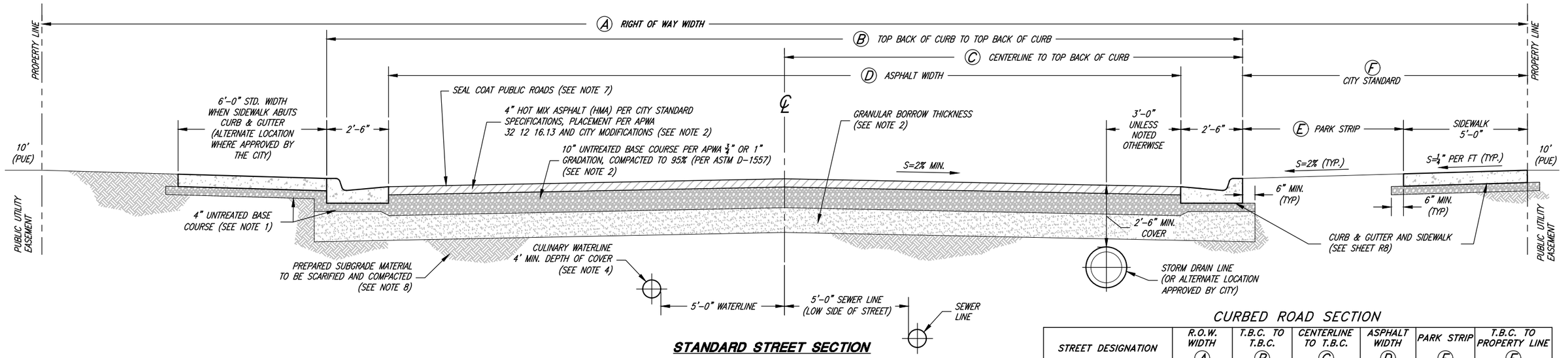
RETAINING WALL

REV.	DATE	APPR.

BKJ DESIGNED
TWE DRAWN
BKJ CHECKED

SCALE:
24"x36" H:1"=20' V:1"=4'
11"x17" H:1"=40' V:1"=8'

SHEET:
D1
OF 1 SHEETS



STANDARD STREET SECTION

GENERAL NOTES:

1. PROVIDE 4" THICKNESS OF 3/4" OR 1" UNTREATED BASE COURSE UNDER SIDEWALK, DRIVEWAY APPROACHES AND CURB & GUTTER, COMPACTED TO 95%, PER ASTM D-1557.
2. THE PAVEMENT THICKNESS SHALL BE CONSIDERED AS CITY MINIMUMS AND MAY BE REQUIRED TO BE ADJUSTED WHEN A GREATER DEPTH IS NECESSARY TO PROVIDE STABILITY, OR PER THE GEOTECHNICAL REPORT OR CITY. DESIGNER AND/OR DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN BASED ON A DETAILED SOILS ANALYSIS FOR APPROVAL BY THE CITY WHICH MAY MODIFY PAVEMENT THICKNESS, BUT IN NO CASE SHALL THE BITUMINOUS SURFACE COURSE BE LESS THAN 4" THICK AND UNTREATED BASE COURSE LESS THAN 10" THICK. GRANULAR BORROW THICKNESS PER GEOTECHNICAL REPORT.
3. ALL ROAD CUTS SHALL BE PATCHED PER SHEET R9 AND SHEET R10
4. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION FROM ALL SEWER MAINS AND LATERALS OF 10'-0" HORIZONTAL AND 18" VERTICAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER RULES SECTION R309-550-7
5. THE 5'-0" SIDEWALK SHOWN ABOVE IS TO BE CONSIDERED THE "CITY STANDARD." OTHER LOCATIONS AND TYPES OF SIDEWALK AS REQUESTED BY THE DEVELOPER MUST BE APPROVED BY THE CITY. IF SIDEWALK IS LOCATED AGAINST THE T.B.C., IT MUST BE A MINIMUM OF 6'-0" IN WIDTH.
6. NATURAL GAS AND POWER AND COMMUNICATION LINES TYPICALLY LOCATED BEHIND PROPERTY LINES IN THE 10' PUBLIC UTILITY EASEMENT.
7. SEAL COAT NEW PAVEMENT APPROXIMATELY 6 MONTHS TO ONE YEAR AFTER INSTALLATION, PRIOR TO THE END OF THE ONE-YEAR DEVELOPMENT WARRANTY PERIOD, OR AS OTHERWISE DIRECTED BY THE CITY. "SEAL COAT" CONSISTS OF THE FOLLOWING:
   a. TYPE II SLURRY SEAL (RESIDENTIAL ROADS);
   b. CHIP SEAL WITH CAPE SEAL (LIGHTWEIGHT AGGREGATE).
8. IMPORTED FILL UNDER ROADWAY SHALL BE GRANULAR BORROW, 3" MAX.
9. ALL EARTHWORK SHALL BE SUBJECT TO SOIL TESTING.
10. TREES IN PARK STRIPS MUST BE APPROVED BY THE CITY.

GENERAL NOTES CONT.:

11. THE SPECIAL RESIDENTIAL STREET SECTION SHALL BE USED FOR RESIDENTIAL ROADWAYS THAT QUALIFY TO BE WIDER (AS PER UTAH CODE 10-9A-508(51). THE CITY CAN REQUIRE THE INSTALLATION OF PAVEMENT IN EXCESS OF 32 FEET FOR RESIDENTIAL ROADS THAT MEET THE FOLLOWING CONDITIONS:
   - TO ADDRESS SPECIFIC TRAFFIC FLOW CONSTRAINTS AT AN INTERSECTION, MID-BLOCK CROSSINGS, OR OTHER AREAS;
   - TO ADDRESS AN APPLICABLE GENERAL OR MASTER PLAN IMPROVEMENT, INCLUDING TRANSPORTATION, BICYCLE LANES, TRAILS, OR OTHER SIMILAR IMPROVEMENTS THAT ARE NOT INCLUDED WITHIN AN IMPACT FEE AREA;
   - TO ADDRESS TRAFFIC FLOW CONSTRAINTS FOR SERVICE TO OR ABUTTING HIGHER DENSITY DEVELOPMENTS OR USES THAT GENERATE HIGHER TRAFFIC VOLUMES, INCLUDING COMMUNITY CENTERS, SCHOOLS, AND OTHER SIMILAR USES;
   - AS NEEDED FOR THE INSTALLATION OR LOCATION OF A UTILITY WHICH IS MAINTAINED BY THE MUNICIPALITY AND IS CONSIDERED A TRANSMISSION LINE OR REQUIRES ADDITIONAL ROADWAY WIDTH;
   - FOR THIRD-PARTY UTILITY LINES THAT HAVE AN EASEMENT PREVENTING THE INSTALLATION OF UTILITIES MAINTAINED BY THE MUNICIPALITY WITHIN THE ROADWAY;
   - FOR UTILITIES OVER 12 FEET IN DEPTH;
   - FOR ROADWAYS WITH A DESIGN SPEED THAT EXCEEDS 25 MILES PER HOUR;
   - AS NEEDED FOR FLOOD AND STORMWATER ROUTING;
   - AS NEEDED TO MEET FIRE CODE REQUIREMENTS FOR PARKING AND HYDRANTS;
   - OR AS NEEDED TO ACCOMMODATE STREET PARKING.

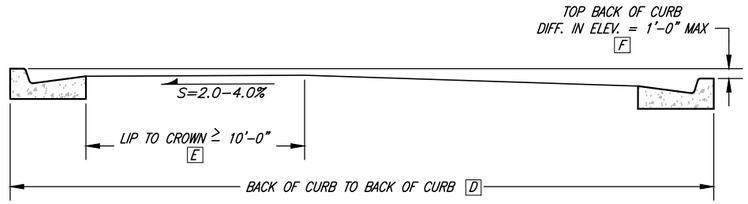
CURBED ROAD SECTION

STREET DESIGNATION	R.O.W. WIDTH Ⓐ	T.B.C. TO T.B.C. Ⓑ	CENTERLINE TO T.B.C. Ⓒ	ASPHALT WIDTH Ⓓ	PARK STRIP Ⓔ	T.B.C. TO PROPERTY LINE Ⓕ
LOCAL RESIDENTIAL	**60'-0"**	37'-0"	18'-6"	32'-0"	6'-6"	11'-6"
SPECIAL RESIDENTIAL (SEE GENERAL NOTE 11)	**60'-0"**	41'-0"	20'-6"	36'-0"	4'-6"	9'-6"
MINOR COLLECTOR	**66'-0"**	47'-0"	23'-6"	42'-0"	4'-6"	9'-6"
MAJOR COLLECTOR	**80'-0"**	61'-0"	30'-6"	56'-0"	4'-6"	9'-6"
ARTERIAL (STATE ROADS/UDOT)	**PER COORDINATION WITH THE CITY AND UDOT**					

NOTES:

B1. THE ROAD SECTION REQUIRED SHALL BE AS DETERMINED BY THE CITY BASED UPON ZONING, GENERAL PLAN, MASTER PLAN, SIZE OF DEVELOPMENT, ESTIMATED TRAFFIC VOLUME, & AMOUNT OF OPEN SPACE ASSOCIATED WITH DEVELOPMENTS, AS WELL AS THE PROXIMITY TO HIGH VOLUME ROADS OR COMMERCIAL ZONING.

B2. LOCATION OF SIDEWALK AND CURB & GUTTER MAY VARY ON INDIVIDUAL ARTERIAL STREETS PER DIRECTION OF THE CITY.



CROWN NOTES:

A1. MAXIMUM DIFFERENCE IN ELEVATION BETWEEN CURBS ON OPPOSITE SIDES OF THE STREET SHALL NOT EXCEED 1'-0" AS SHOWN IN DETAIL AND TABLE.

A2. ON ARTERIAL STREETS AND CERTAIN STREETS APPROVED BY THE CITY ADMINISTRATIVE LAND USE AUTHORITY, THE CITY WILL PROVIDE A PAVEMENT DESIGN. LOCATION OF SIDEWALK AND CURB & GUTTER MAY VARY ON INDIVIDUAL ARTERIAL STREETS PER DIRECTION OF THE CITY.

A3. ALL OTHER PROPOSED STREET CROSS SECTIONS SHALL BE AS APPROVED BY THE CITY.

CROWN LOCATION TABLE		
D	E	F
41'-0"	18'-0"	0'-0"
41'-0"	12'-0"	0'-6"
41'-0"	10'-0"	1'-0"
47'-0"	21'-0"	0'-0"
47'-0"	10'-6"	0'-6"
47'-0"	10'-6"	1'-0"
CUL-DE-SAC		1'-0" MAX.

CROWN LOCATION FOR VARIOUS CROSS SLOPES

CITY ENGINEER
3/8/2024
DATE

REV.	DATE	APPR.	

SCALE: N.T.S.

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South Ogden, Utah 84403 (801) 476-9767
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Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS
TYPICAL STREET SECTION DETAILS

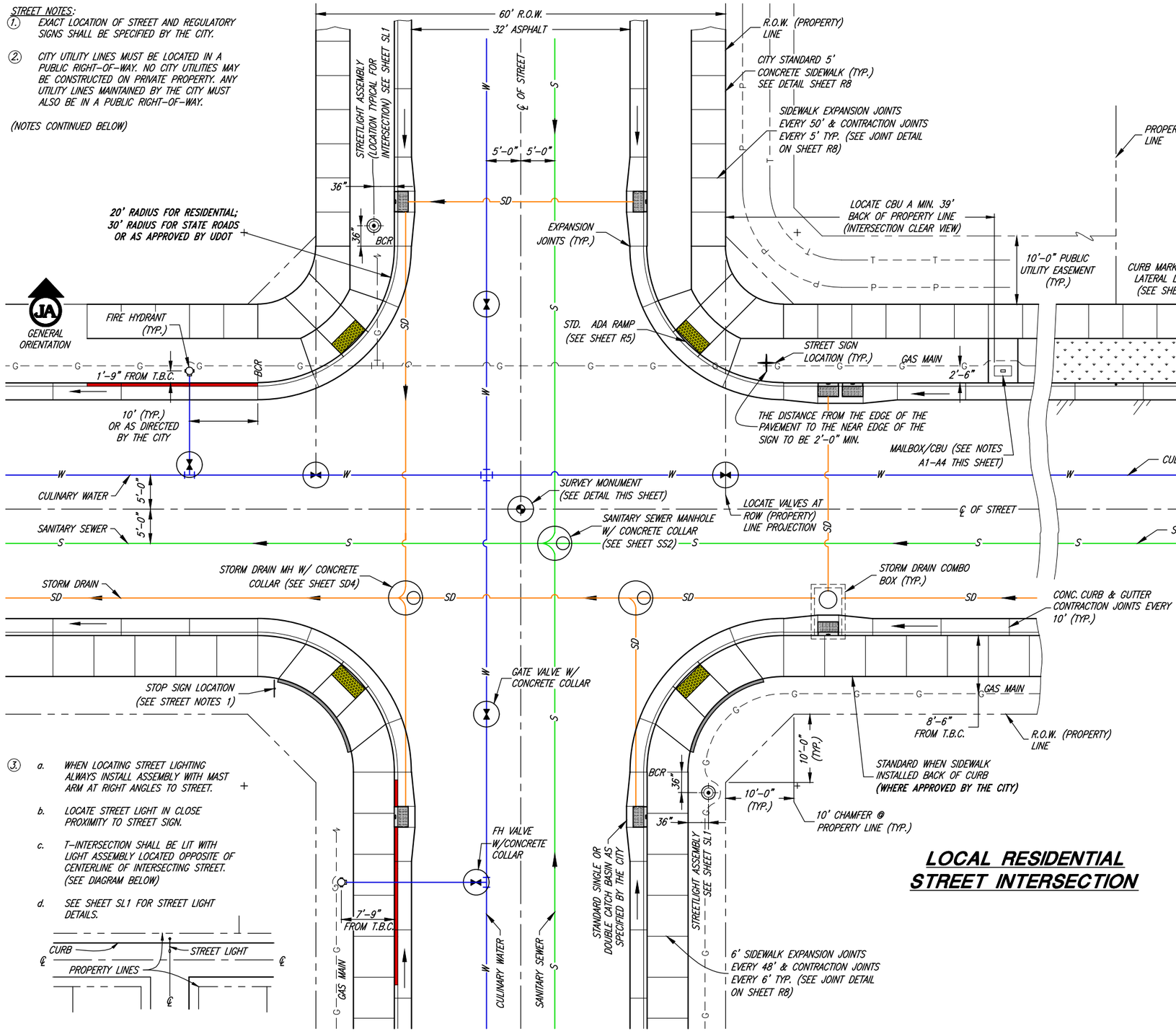
SHEET: R1 OF X SHEETS
0

STREET NOTES:

1. EXACT LOCATION OF STREET AND REGULATORY SIGNS SHALL BE SPECIFIED BY THE CITY.

2. CITY UTILITY LINES MUST BE LOCATED IN A PUBLIC RIGHT-OF-WAY. NO CITY UTILITIES MAY BE CONSTRUCTED ON PRIVATE PROPERTY. ANY UTILITY LINES MAINTAINED BY THE CITY MUST ALSO BE IN A PUBLIC RIGHT-OF-WAY.

(NOTES CONTINUED BELOW)



3. a. WHEN LOCATING STREET LIGHTING ALWAYS INSTALL ASSEMBLY WITH MAST ARM AT RIGHT ANGLES TO STREET.

b. LOCATE STREET LIGHT IN CLOSE PROXIMITY TO STREET SIGN.

c. T-INTERSECTION SHALL BE LIT WITH LIGHT ASSEMBLY LOCATED OPPOSITE OF CENTERLINE OF INTERSECTING STREET. (SEE DIAGRAM BELOW)

d. SEE SHEET SL1 FOR STREET LIGHT DETAILS.

LOCAL RESIDENTIAL STREET INTERSECTION

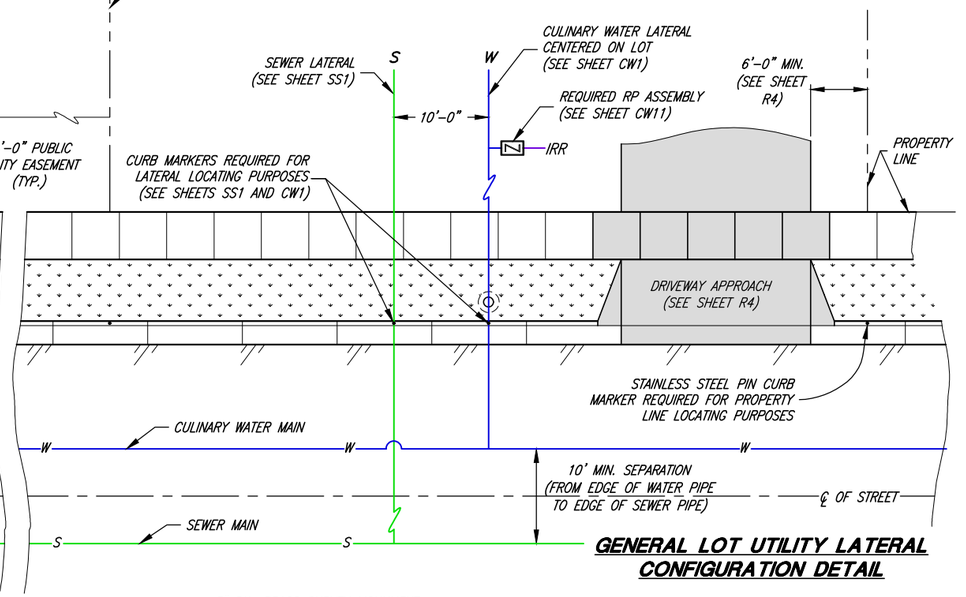
MAILBOX/CBU NOTES:

A1. MAILBOXES SHALL NOT BE PLACED IN THE SIDEWALK. NO MAILBOX OR CBU EDGES SHALL EXTEND PAST THE T.B.C..

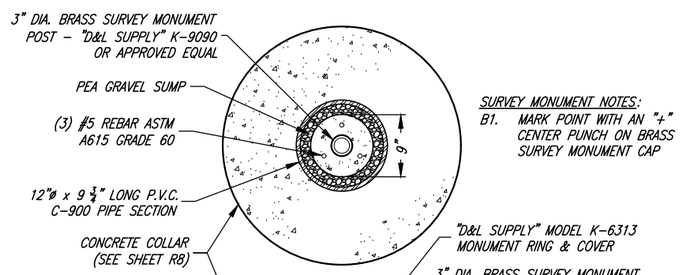
A2. PRIOR TO INSTALLATION, CONTACT THE LOCAL POSTMASTER FOR MAILBOX/CBU LOCATION APPROVAL.

A3. FOLLOW USPS GUIDELINES & POLICIES FOR THE PLACEMENT, INSTALLATION, AND ACCESS REQUIREMENTS FOR ALL MAILBOX AND CBU UNITS.

A4. INDIVIDUAL MAILBOXES SHALL ONLY BE PERMITTED FOR SINGLE FAMILY HOMES BUILT IN SUBDIVISIONS WITH EXISTING SINGLE MAILBOXES.

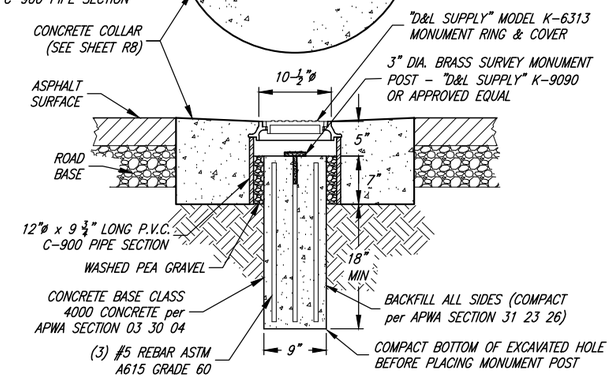


GENERAL LOT UTILITY LATERAL CONFIGURATION DETAIL



SURVEY MONUMENT NOTES:

B1. MARK POINT WITH AN "+" CENTER PUNCH ON BRASS SURVEY MONUMENT CAP



SURVEY MONUMENT DETAIL

CITY ENGINEER

3/8/2024
DATE

REV.	DATE	APPR.

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Clearfield City Public Works

CLEARFIELD CITY CORPORATION

PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

TYPICAL STREET INTERSECTION, UTILITY LATERAL CONFIGURATION, AND STREET MONUMENT DETAILS

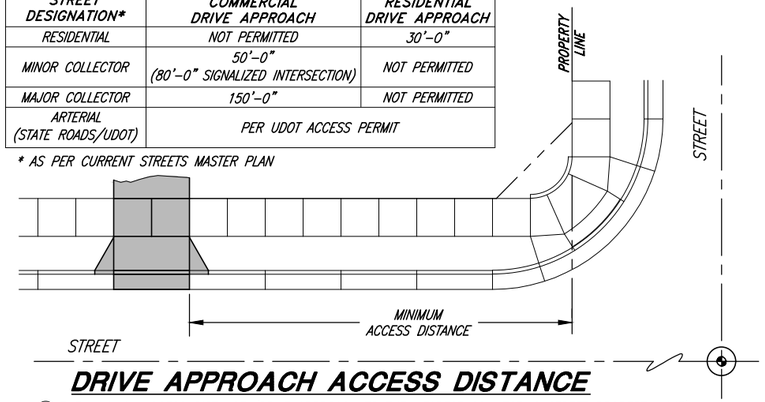
SHEET: R2

OF X SHEETS

0

HIGHEST CAPACITY STREET DESIGNATION*	MINIMUM ACCESS DISTANCE (FEET)	
	COMMERCIAL DRIVE APPROACH	RESIDENTIAL DRIVE APPROACH
RESIDENTIAL	NOT PERMITTED	30'–0"
MINOR COLLECTOR	50'–0" (80'–0" SIGNALIZED INTERSECTION)	NOT PERMITTED
MAJOR COLLECTOR	150'–0"	NOT PERMITTED
ARTERIAL (STATE ROADS/UDOT)	PER UDOT ACCESS PERMIT	

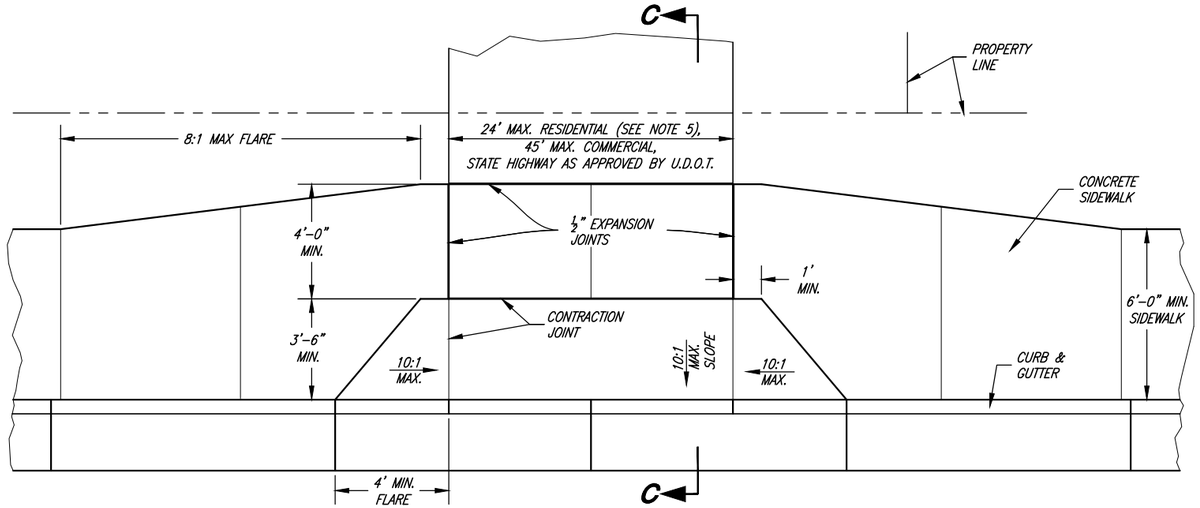
* AS PER CURRENT STREETS MASTER PLAN



DRIVE APPROACH ACCESS DISTANCE

(A) THE MINIMUM ACCESS DISTANCE (DRIVE APPROACH TO THE NEAREST CONNECTING STREET PROPERTY LINE) SHALL BE AS DESCRIBED IN THE DETAIL AND TABLE ABOVE.

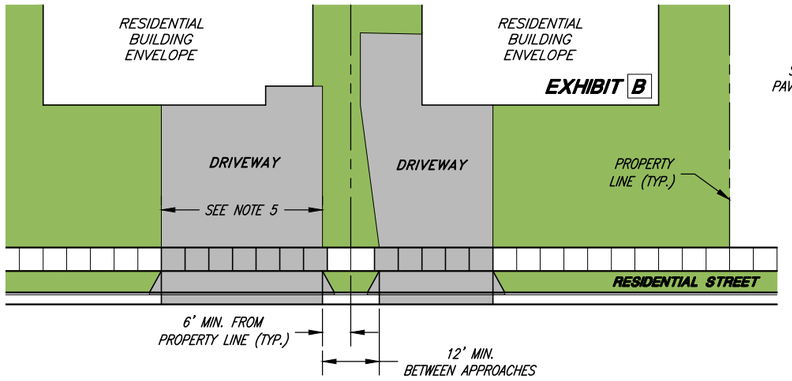
(B) THE ABOVE DISTANCES SHALL BE CONSIDERED AS CITY MINIMUMS. DESIGNER AND/OR DEVELOPER MAY SUBMIT AN ALTERNATE DESIGN BASED ON A DETAILED TRAFFIC STUDY FOR APPROVAL BY THE CITY.

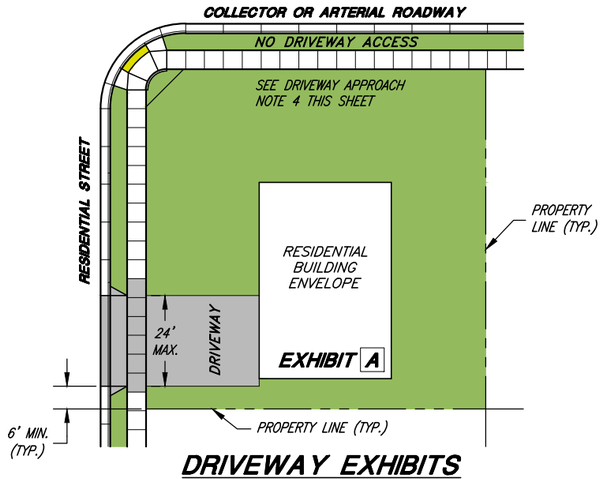


DRIVEWAY APPROACH W/ ADJACENT SIDEWALK

DRIVEWAY APPROACH NOTES:

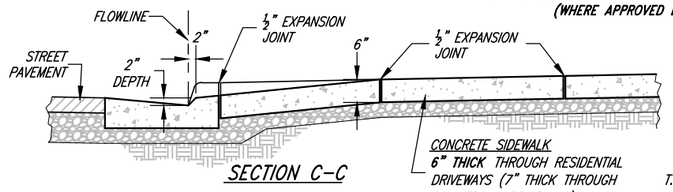
1. IN NEW DEVELOPMENTS WHERE FUTURE DRIVEWAY LOCATIONS ARE UNKNOWN, THE DRIVEWAY APPROACH SHALL BE MADE BY SAW CUTTING THE BACK OF THE EXISTING CURB TO THE REQUIRED DRIVEWAY WIDTH. ALL SAW CUTTING SHALL BE ACCOMPLISHED BY A CITY APPROVED LICENSED CONTRACTOR.
2. SCORE SIDEWALK 1/4 OF SIDEWALK THICKNESS AT EACH 5'–0" OR 6'–0" SECTION. EXPANSION JOINTS AT EACH 50'–0" (5'–0" SIDEWALK) OR 48'–0" (6'–0" SIDEWALK).
4. APPROACHES SHALL NOT BE ALLOWED ON CORNER LOTS WITHIN THE CLEAR VIEW AREA. (SEE CLEAR VIEW DETAIL THIS SHEET)
5. IF A RESIDENTIAL LOT HAS TWO FRONTAGES AND ONE OF THOSE FRONTAGES IS LOCATED ON A COLLECTOR OR ARTERIAL STREET, THE DRIVEWAY SHALL BE LOCATED ON THE RESIDENTIAL STREET ONLY. NO DRIVEWAY ACCESS WILL BE PERMITTED ONTO THE COLLECTOR OR ARTERIAL STREET. (SEE DRIVEWAY EXHIBIT A)
6. WHEN APPROVED BY THE CITY, THE RESIDENTIAL DRIVEWAY MAY BE INCREASED TO A MAX. 34'–0" WIDTH FOR ACCESSORY PARKING (THREE CAR GARAGE, RV PARKING, ETC.). APPROVAL WILL BE CONSIDERED ON A CASE BY CASE BASIS PER PROPERTY SETBACKS, DRIVE APPROACH CLEAR VIEW AREA, AND CITY CODE.



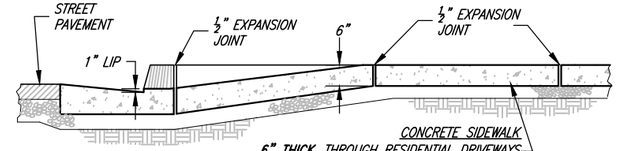


DRIVEWAY EXHIBITS

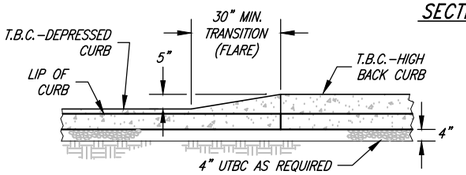
STANDARD WHEN SIDEWALK INSTALLED BACK OF CURB (WHERE APPROVED BY THE CITY)



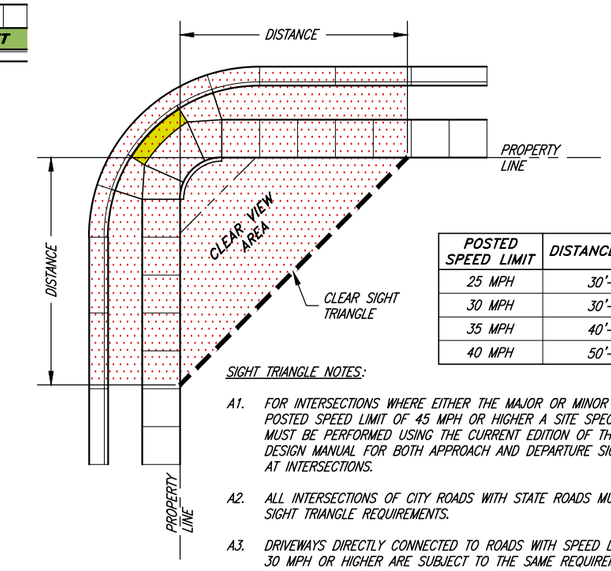
SECTION C–C



SECTION A–A



SECTION B–B



POSTED SPEED LIMIT	DISTANCE (MIN.)
25 MPH	30'–0"
30 MPH	30'–0"
35 MPH	40'–0"
40 MPH	50'–0"

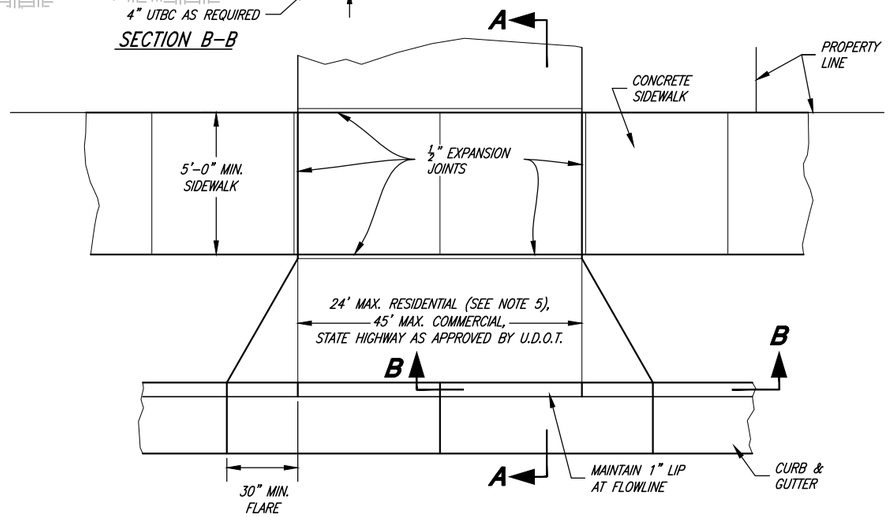
SIGHT TRIANGLE NOTES:

A1. FOR INTERSECTIONS WHERE EITHER THE MAJOR OR MINOR ROAD HAS A POSTED SPEED LIMIT OF 45 MPH OR HIGHER A SITE SPECIFIC ANALYSIS MUST BE PERFORMED USING THE CURRENT EDITION OF THE AASHTO DESIGN MANUAL FOR BOTH APPROACH AND DEPARTURE SIGHT TRIANGLES AT INTERSECTIONS.

A2. ALL INTERSECTIONS OF CITY ROADS WITH STATE ROADS MUST MEET UDOT SIGHT TRIANGLE REQUIREMENTS.

A3. DRIVEWAYS DIRECTLY CONNECTED TO ROADS WITH SPEED LIMITS OF 30 MPH OR HIGHER ARE SUBJECT TO THE SAME REQUIREMENTS FOR SIGHT TRIANGLES AS AN INTERSECTION.

INTERSECTION SIGHT TRIANGLES



DRIVEWAY APPROACH W/ PARK STRIP

DROP DOWN STYLE (CITY STANDARD)

CITY ENGINEER

3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

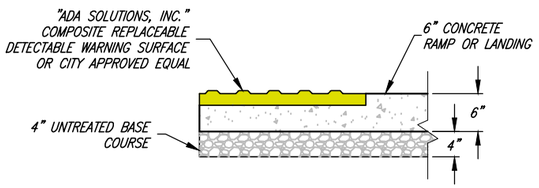
TYPICAL DRIVE APPROACH DETAILS

SHEET: R4

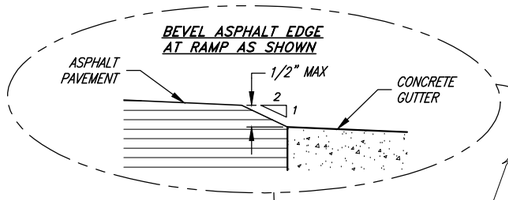
OF X SHEETS 0

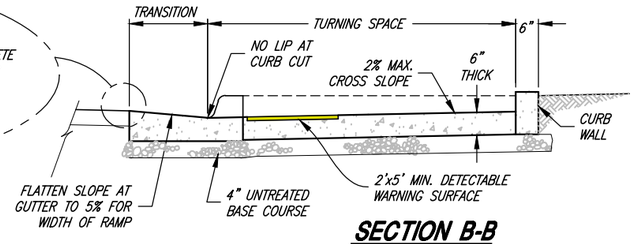
DETECTABLE WARNING SURFACE NOTES:

1. LOCATE THE DETECTABLE WARNING SURFACE SO THE OUTSIDE CORNER NEAREST THE STREET IS WITHIN 1 INCH OF THE BACK OF CURB (T.B.C.). PROVIDE 2'-0" MINIMUM DEPTH.
2. PROVIDE DETECTABLE WARNING SURFACE FOR FULL WIDTH OF CURB CUT.
3. THE DETECTABLE WARNING SURFACE DOMES SHALL BE ORIENTED SUCH THAT THE ROWS ARE PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL TO THE RAMP ON THE OPPOSITE SIDE OF THE STREET.
4. THE STANDARD COLOR FOR THE DETECTABLE WARNING SURFACE SHALL BE YELLOW OR PRE-APPROVED CONTRASTING COLOR. WHEN THE EXISTING SIDEWALK COLOR IS NOT STANDARD CONCRETE, THE COLOR OF THE DETECTABLE WARNING SURFACE SHALL BE DETERMINED BY THE CITY.
5. WHEN A DETECTABLE WARNING SURFACE DOME IS CUT, THE REMAINING PORTION OF THE DOME SHALL BE BEVELED TO A MAXIMUM SLOPE OF 1:2.

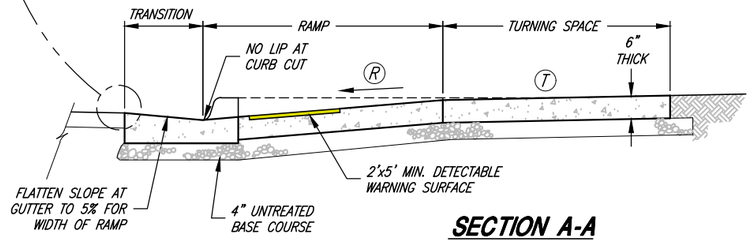


DETECTABLE WARNING SURFACE DETAIL

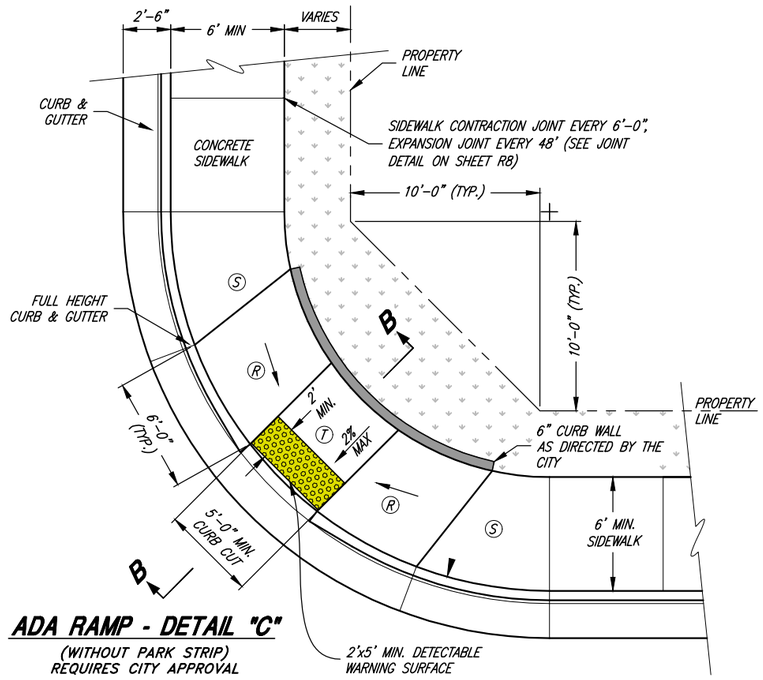




SECTION B-B



SECTION A-A



ADA RAMP - DETAIL "C"

(WITHOUT PARK STRIP)
REQUIRES CITY APPROVAL

ADA RAMP NOTES:

A. WHERE DESIGNATED BY THE CITY, ALTERNATE UDOT OR APWA RAMP DESIGNS MAY BE USED WITH PRIOR APPROVAL OF THE CITY. SUBMIT ENGINEERED CONSTRUCTION PLANS TO CITY FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.

B. SITE CONDITIONS WILL VARY. CONFIGURATION OF RAMP, LANDING, AND TRANSITION MAY BE CHANGED, BUT THEY MUST MEET DIMENSIONS AND SLOPES AS SHOWN IN THE MOST RECENT EDITION OF THE U.D.O.T. STANDARDS & SPECIFICATIONS. THE USE OF FLARES, CURB WALLS, ETC. ARE AT THE DISCRETION OF THE ENGINEER.

C. LOCATE CURB CUT WITHIN CROSSWALK.

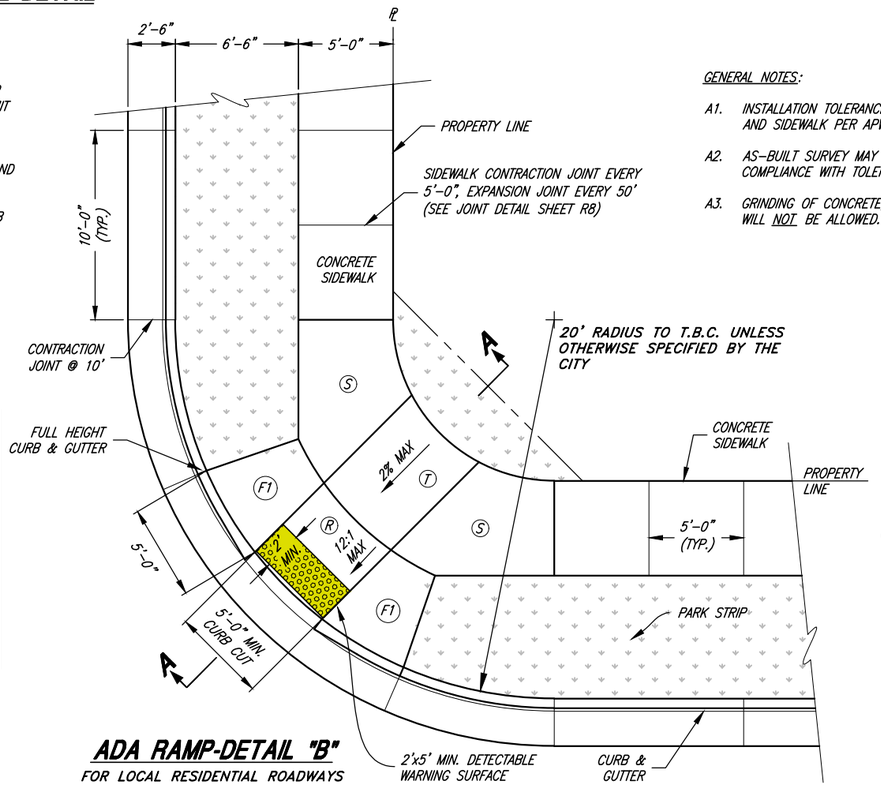
D. RAMP GRADE BREAK MUST BE PERPENDICULAR TO THE RUNNING SLOPE.

SLOPE TABLE			
	ITEM	MAX RUNNING SLOPE*	MAX. CROSS SLOPE*
T	TURNING SPACE [2]	2% (1V:48H)	2% (1V:48H)
R	RAMP	8.3% (1V:12H)	2% (1V:48H)
S	SIDEWALK	5% (1:20) [1]	2% (1V:48H)
F1	TRAVERSABLE SURFACE	10% (1V:10H)	--
F2	NON-TRAVERSABLE SURFACE	25% (1V:4H)	--
B	BLENDED TRANSITION	5% (1V:20H) 2% MIN.	2% (1V:48H)

* RUNNING SLOPE IS IN THE DIRECTION OF PEDESTRIAN TRAVEL. CROSS SLOPE IS PERPENDICULAR TO PEDESTRIAN TRAVEL.

[1] 5% MAX OR NATURAL SLOPE OF LAND

[2] NOT TO EXCEED 2% IN ANY DIRECTION



ADA RAMP-DETAIL "B"

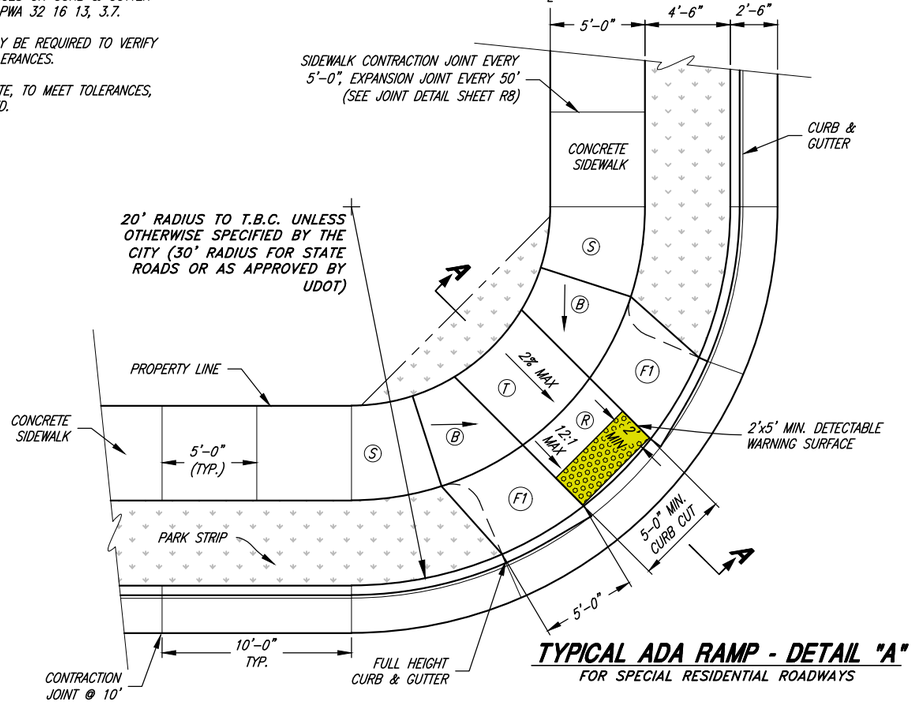
FOR LOCAL RESIDENTIAL ROADWAYS

GENERAL NOTES:

A1. INSTALLATION TOLERANCES ON CURB & GUTTER AND SIDEWALK PER APWA 32 16 13, 3.7.

A2. AS-BUILT SURVEY MAY BE REQUIRED TO VERIFY COMPLIANCE WITH TOLERANCES.

A3. GRINDING OF CONCRETE, TO MEET TOLERANCES, WILL NOT BE ALLOWED.



TYPICAL ADA RAMP - DETAIL "A"

FOR SPECIAL RESIDENTIAL ROADWAYS

CITY ENGINEER				SCALE:	CONSULTING ENGINEERS
3/8/2024				N.T.S.	6080 Fashion Point Drive
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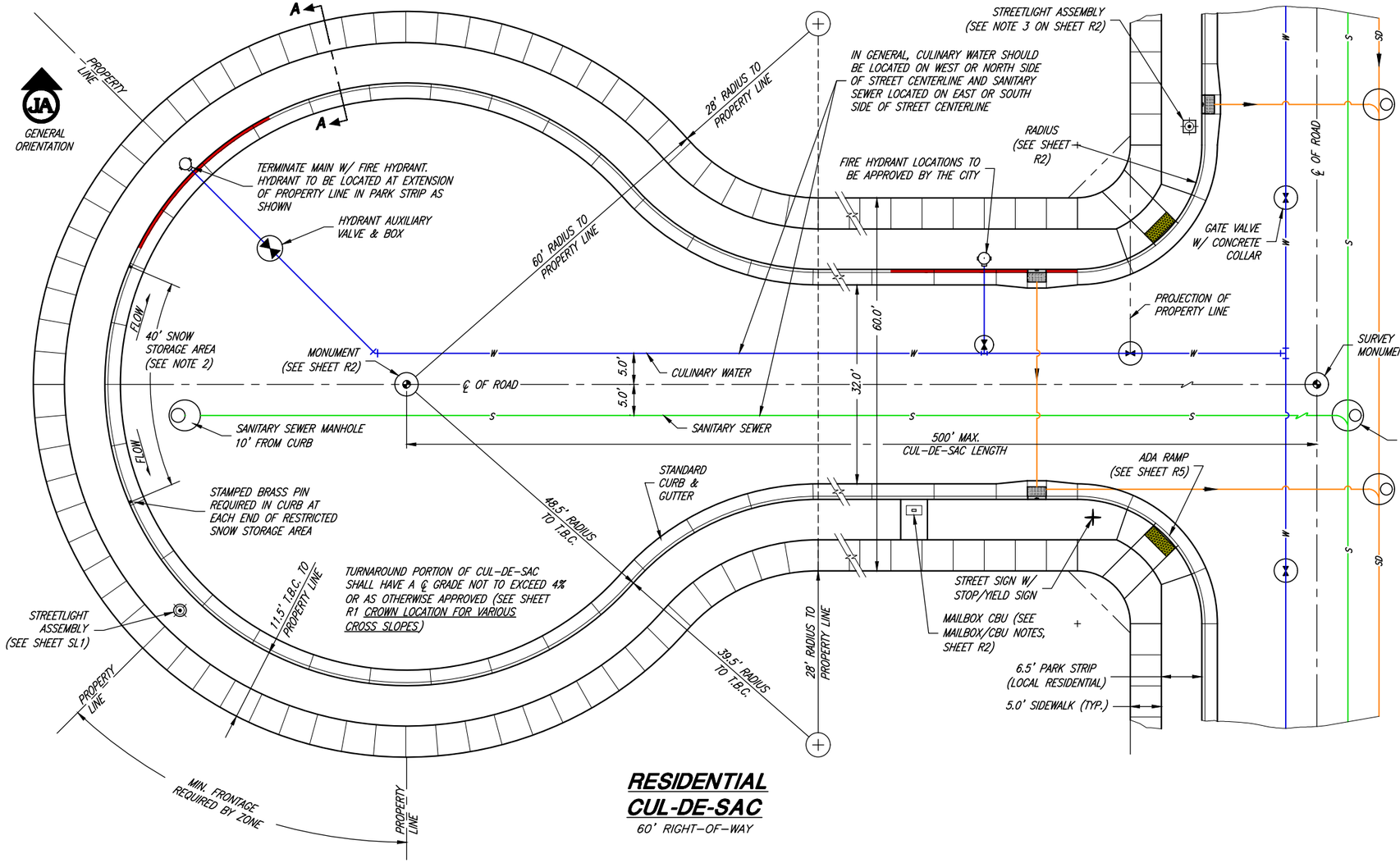
PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

TYPICAL ADA RAMP DETAILS

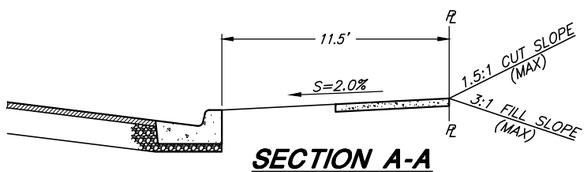
SHEET: R5 OF X SHEETS

0



RESIDENTIAL CUL-DE-SAC

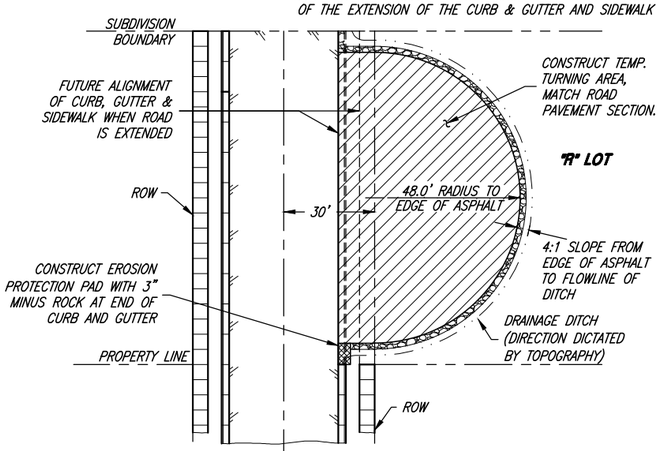
60' RIGHT-OF-WAY



SECTION A-A

REQUIRED GRADING BETWEEN T.B.C. AND PROPERTY LINE

NOTE: DEVELOPER EXTENDING THE ROAD IS REQUIRED TO PAY FOR THE REMOVAL OF THE CIRCLE AND CONSTRUCTION OF THE EXTENSION OF THE CURB & GUTTER AND SIDEWALK



TEMPORARY TURNAROUND

(FOR INSIDE SUBDIVISION BOUNDARY TO BE MAINTAINED BY PROPERTY OWNER)

CITY STANDARD TEMPORARY TURNAROUND

(FOR OUTSIDE OF SUBDIVISION BOUNDARY AND TO BE MAINTAINED BY PROPERTY OR EASEMENT OWNER)

GENERAL NOTES:

1. THE CIRCULAR CUL-DE-SAC LAYOUT ON THIS SHEET IS THE CITY STANDARD DESIGN. OTHER ALTERNATE DESIGNS MAY BE CONSIDERED AS APPROVED BY THE CITY.
2. NO DRIVEWAYS, FIRE HYDRANTS, OR MAIL BOXES ARE PERMITTED WITHIN THE SNOW STORAGE AREA. THE SNOW STORAGE AREA SHALL BE SHOWN ON THE IMPROVEMENT AND/OR CONSTRUCTION PLANS PRIOR TO SUBDIVISION AND/OR CUL-DE-SAC APPROVAL.

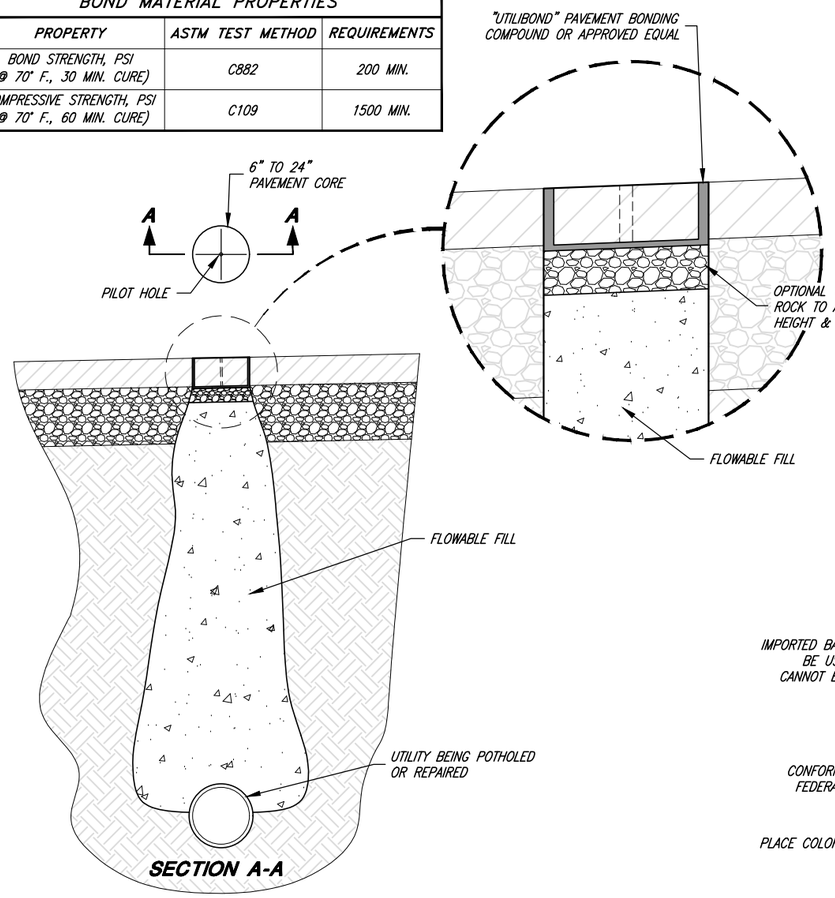
TURNAROUND NOTES:

A. THE DRAINAGE DITCH SHALL HAVE A 4 HORZ. TO 1 VERT. (4:1) SIDE SLOPE FROM THE EDGE OF GRAVEL TO THE FLOW LINE OF DITCH.

B. DRAINAGE DITCH MUST HAVE A MIN. GRADE OF 0.5%.

CITY ENGINEER				SCALE:	CONSULTING ENGINEERS	CLEARFIELD CITY CORPORATION	SHEET:
3/8/2024	REV.	DATE	APPR.	N.T.S.	JONES & ASSOCIATES 6080 Fashion Point Drive South Ogden, Utah 84403 (801) 476-9767 www.jonescivil.com	PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS	R6
DATE					Clearfield City Public Works	CUL-DE-SAC & TEMPORARY TURNAROUND DETAILS	OF X SHEETS 0

BOND MATERIAL PROPERTIES		
PROPERTY	ASTM TEST METHOD	REQUIREMENTS
BOND STRENGTH, PSI (@ 70° F., 30 MIN. CURE)	C882	200 MIN.
COMPRESSIVE STRENGTH, PSI (@ 70° F., 60 MIN. CURE)	C109	1500 MIN.



UTILITY POTHOLING DETAIL

KEYHOLE METHOD

UTILITY POTHOLE NOTES:

A1. CONTRACTOR SHALL PLACE A TEMPORARY PAINT MARK ON THE PAVEMENT TO ASSURE CORE IS REPLACED IN THE SAME ORIENTATION.

A2. CORING SHALL BE COMPLETED PERPENDICULAR TO THE HORIZON (NOT THE PAVEMENT), AND SHALL EXTEND THE FULL ASPHALT DEPTH. CORING SHALL BE COMPLETED USING A KEYHOLE CORING SAW CAPABLE OF REMOVING AN INTACT CORE OF PAVEMENT.

A3. CORES SHALL NOT BE LESS THAN 6 INCHES IN DIAMETER AND NO MORE THAN 24 INCHES IN DIAMETER.

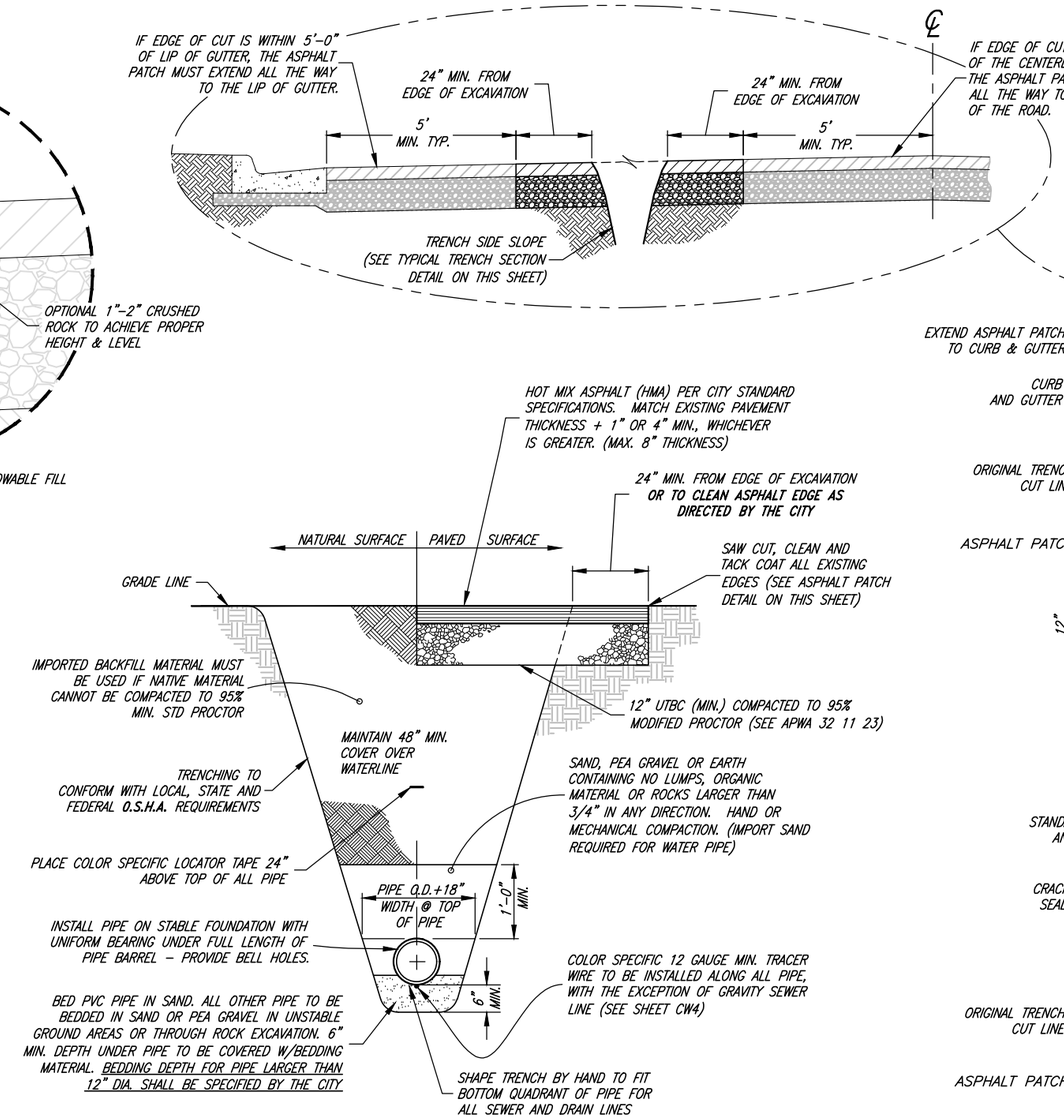
A4. SOIL SHALL BE REMOVED USING AIR/VACUUM EXTRACTION METHODS AND DISPOSED PROPERLY OFF SITE.

A5. FLOWABLE FILL SHALL BE USED TO BACKFILL THE HOLE TO WITHIN ONE TO TWO INCHES OF THE BOTTOM OF THE EXISTING PAVEMENT.

A6. COMPACTED GRAVEL IF NECESSARY SHALL BE USED TO BRING THE POTHOLE TO THE BOTTOM OF PAVEMENT GRADE. THE TEMPORARY PAINT MARK SHALL BE USED TO ALIGN THE CORE TO ITS ORIGINAL POSITION AND THE GRAVEL SHALL BE USED TO LEVEL THE CORE SO THE FINISH GRADE IS FLUSH WITH THE SURROUNDING ASPHALT.

A7. PAVEMENT BONDING COMPOUND SHALL BE USED TO RESTORE THE CORE TO ITS ORIGINAL CONDITION COMPLETELY FLUSH WITH THE SURROUNDING ASPHALT. THE COMPOUND SHALL BE POURED IN THE POTHOLE AND THE CORE PLACE IN AFTER CAUSING THE PAVEMENT BONDING COMPOUND TO FLOW TO THE SURFACE. ALL EXCESS BONDING AGENT SHALL BE REMOVED.

A8. CORES SHALL BE ALLOWED TO CURE PER MANUFACTURER'S RECOMMENDATIONS PRIOR TO OPENING TO TRAFFIC.



TYPICAL TRENCH SECTION

(WATER, SEWER, AND STORM DRAIN)

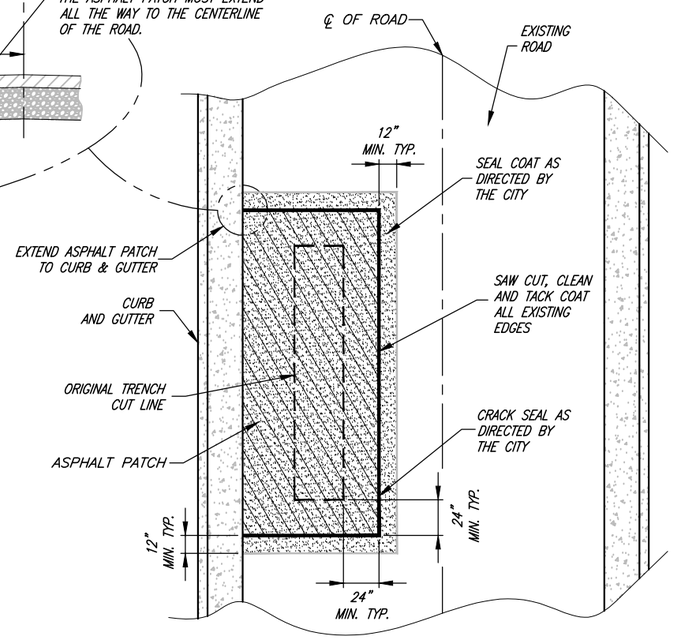
TRENCH NOTES:

A. BACKFILL PER APWA 33 05 20

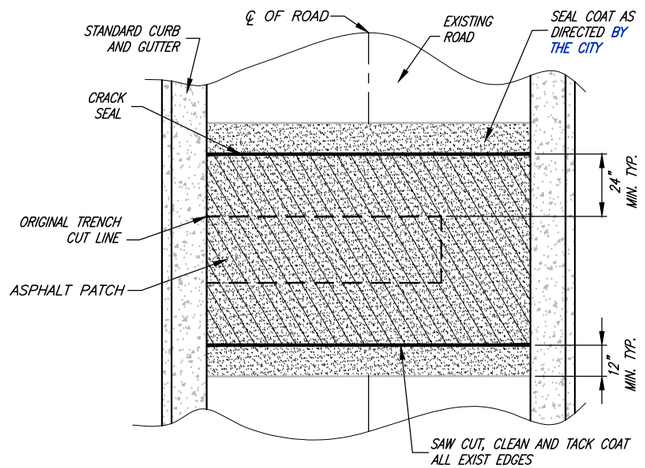
B. PAVEMENT RESTORATION PER APWA 33 05 25 AND CITY MODIFICATIONS.

C. GRAVEL SURFACED AREAS, SUCH AS ROADS AND SHOULDERS, PARKING AREAS, AND UNPAVED DRIVEWAYS, SHALL BE REPAIRED WITH 8" THICK (MIN.) 1" UNTREATED BASE COURSE COMPACTED TO 95% MODIFIED PROCTOR.

D. WATER & SEWER LINES, INCLUDING SERVICE LINES, SHALL NOT BE INSTALLED IN THE SAME TRENCH.



TYPICAL PARALLEL ASPHALT PATCH PLAN



TYPICAL HORIZONTAL ASPHALT PATCH PLAN

ASPHALT PATCH NOTE:

1. ON ANY ROAD PAVED OR OVERLAYED WITHIN THE LAST 10 YEARS, THE PATCH MUST BE COMPLETED PER APWA PLAN 255 BITUMINOUS PAVEMENT T-PATCH. (SEE SHEET R10)

2. NO ANGLED ASPHALT PATCHING ALLOWED.

CITY ENGINEER

3/8/2024

DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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Clearfield City Public Works

CLEARFIELD CITY CORPORATION

PUBLIC WORKS - ROAD IMPROVEMENT STANDARDS

UTILITY TRENCH, UTILITY POTHOLING, AND ASPHALT PATCH PLAN DETAILS

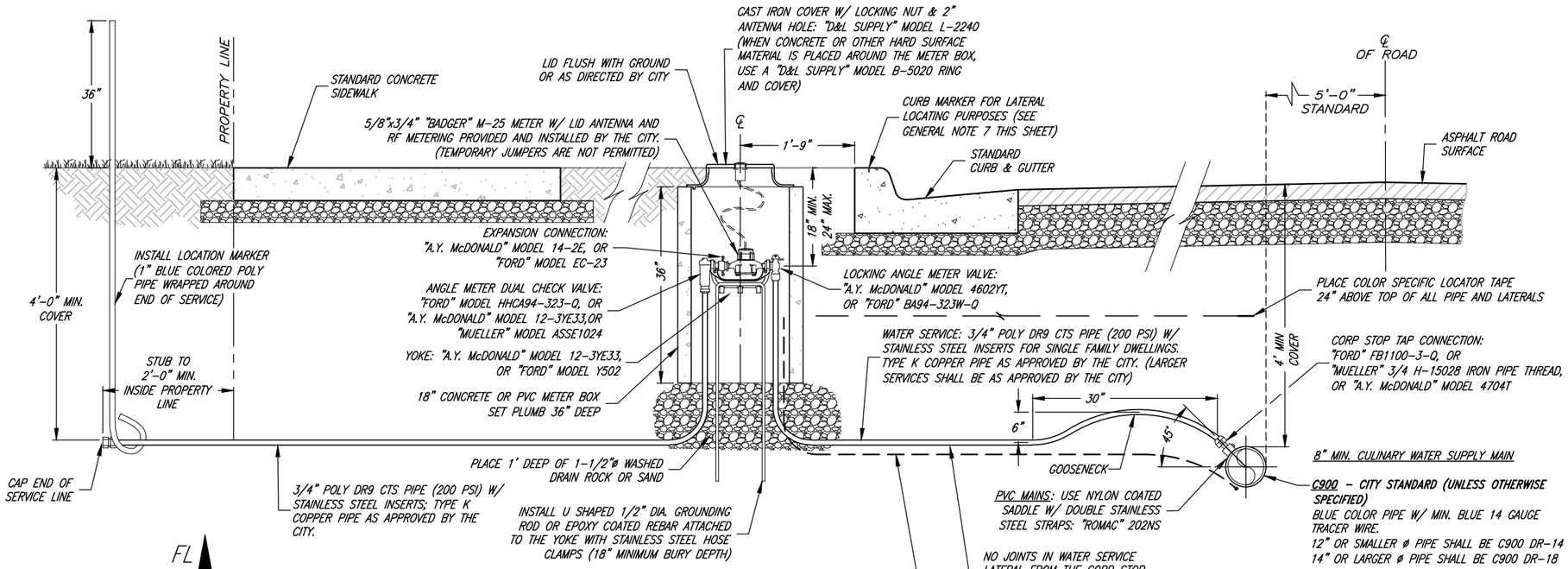
SHEET: R9

OF X SHEETS

0

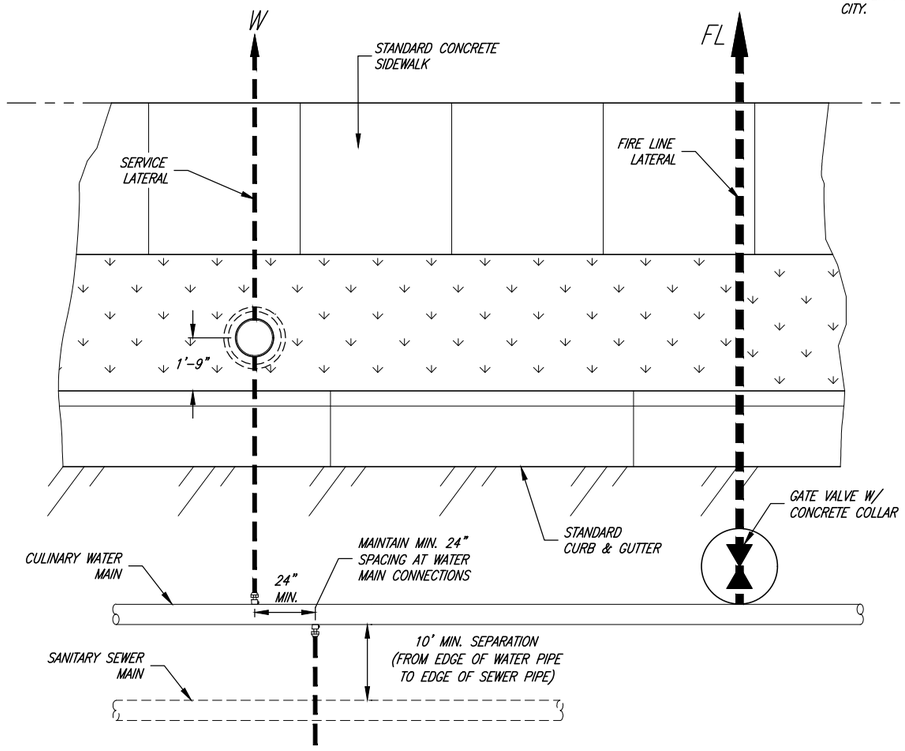
GENERAL NOTES:

1. THE USE OF "MUELLER", "FORD", OR "A.Y. McDONALD" COMPRESSION TYPE FITTINGS IS ACCEPTED BY THE CITY.
2. "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.
3. ALL SUPPLIES, LABOR, EQUIPMENT, ETC. SHALL BE SUPPLIED BY THE DEVELOPER/CONTRACTOR EXCEPT THE WATER METERS. WATER METERS SHALL BE **PAID** FOR BY THE DEVELOPER/CONTRACTOR. CLEARFIELD CITY WILL SUPPLY AND SET ALL WATER METERS.
4. ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH PRIOR APPROVAL OF THE CITY.
4. INSPECTION OF ALL WATER LINE INSTALLATIONS WILL BE DONE BY THE CITY, WITH A 48 HOUR MINIMUM NOTICE REQUIRED PRIOR TO START OF WORK.
6. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION ABOVE ALL SEWER MAINS AND LATERALS OF 18" VERTICAL AND 10'-0" HORIZONTAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER (DDW) RULES SECTION R309-550-7. EXCEPTIONS MUST BE APPROVED BY DDW.
7. STAMPED STAINLESS STEEL PINS (UTILITY WASHERS) USED FOR LATERAL LOCATING ARE REQUIRED BY THE CITY. PINS SHALL BE PROVIDED BY THE CITY AND INSTALLED BY THE CONTRACTOR DURING ALL NEW CONSTRUCTION OR RESTORED WHEN REPLACING DAMAGED CURB & GUTTER DUE TO ANY CONSTRUCTION RELATED ACTIVITY. PINS SHALL BE STAMPED "S" FOR SANITARY SEWER LATERALS AND "W" FOR CULINARY WATER LATERALS.



RESIDENTIAL WATER SERVICE AND METER

CITY STANDARD



STANDARD WATER METER LOCATION

CULINARY WATER FIRE LINE LATERAL NOTES:

A. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL MATERIALS, INSTALLATION, REPAIR AND FUTURE MAINTENANCE FOR THE ENTIRE FIRE LINE LATERAL FROM THE CITY MAIN WATER LINE TO THE POINT OF CONNECTION WITH THE FIRE SUPPRESSION SYSTEM.

B. ALL FIRE LINES SHALL BE SIZED PER CLEARFIELD CITY FIRE CODE (4", 6", 8" OR AS REQUIRED).

CULINARY WATER SERVICE NOTES:

C. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL INSTALLATION OF THE CULINARY WATER SERVICE LATERAL, INCLUDING METER BOX COMPLETE AND CONNECTION TO MAIN WATERLINE.

D. THE PROPERTY OWNER IS RESPONSIBLE FOR ALL REPAIR AND MAINTENANCE OF THE CULINARY WATER SERVICE LATERAL FROM THE CITY WATER METER TO THE POINT OF CONNECTION WITH THE PRIVATE FACILITIES.

E. ONCE THE METER IS SET, CLEARFIELD CITY IS RESPONSIBLE FOR ALL REPAIR AND MAINTENANCE OF THE CULINARY WATER SERVICE FROM THE CULINARY WATER MAIN PIPE TO AND INCLUDING THE WATER METER, METER BOX, LID & FACILITIES CONTAINED THEREIN.

F. CULINARY WATER METERS SHALL NOT BE LOCATED WITHIN THE DRIVEWAY AREA. IN THE CIRCUMSTANCE THAT A DRIVEWAY IS PLACED OVER AN EXISTING METER, THE PROPERTY OWNER SHALL FOLLOW THE CITY STANDARD GUIDELINES AS OUTLINED IN THE METER LOCATION NOTES ON SHEET CW2.

CITY ENGINEER

3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
RESIDENTIAL WATER SERVICE CONNECTION DETAILS

SHEET: CW1
OF X SHEETS
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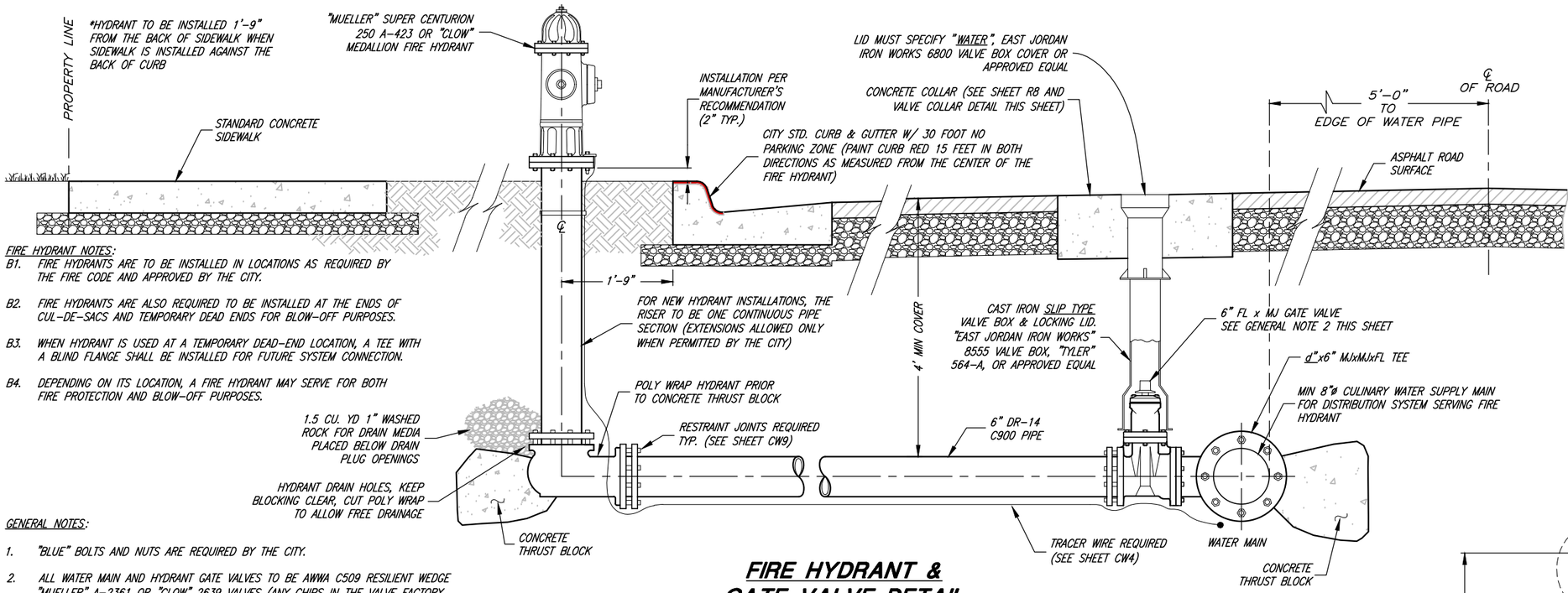


FIRE HYDRANT & GATE VALVE DETAIL

FIRE HYDRANT NOTES:

B1. FIRE HYDRANTS ARE TO BE INSTALLED IN LOCATIONS AS REQUIRED BY THE FIRE CODE AND APPROVED BY THE CITY.

B2. FIRE HYDRANTS ARE ALSO REQUIRED TO BE INSTALLED AT THE ENDS OF CUL-DE-SACS AND TEMPORARY DEAD ENDS FOR BLOW-OFF PURPOSES.

B3. WHEN HYDRANT IS USED AT A TEMPORARY DEAD-END LOCATION, A TEE WITH A BLIND FLANGE SHALL BE INSTALLED FOR FUTURE SYSTEM CONNECTION.

B4. DEPENDING ON ITS LOCATION, A FIRE HYDRANT MAY SERVE FOR BOTH FIRE PROTECTION AND BLOW-OFF PURPOSES.

GENERAL NOTES:

1. "BLUE" BOLTS AND NUTS ARE REQUIRED BY THE CITY.

2. ALL WATER MAIN AND HYDRANT GATE VALVES TO BE AWWA C509 RESILIENT WEDGE "MUELLER" A-2361 OR "CLOW" 2639 VALVES (ANY CHIPS IN THE VALVE FACTORY COATING DUE TO SHIPPING/INSTALLATION MUST BE REPAIRED USING AN APPROVED EPOXY COATING)

3. ALL SPECIFIED BRANDS OF MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS MAY BE USED WITH PRIOR APPROVAL OF THE CITY.

4. PIPES, JOINTS, FITTINGS, VALVES, & FIRE HYDRANTS SHALL CONFORM TO ANSI / NSF 61.

5. FIRE HYDRANTS SHALL NOT BE LOCATED WITHIN 10'-0" OF A SANITARY SEWER OR WITHIN 10'-0" OF STORM DRAIN WHERE POSSIBLE.

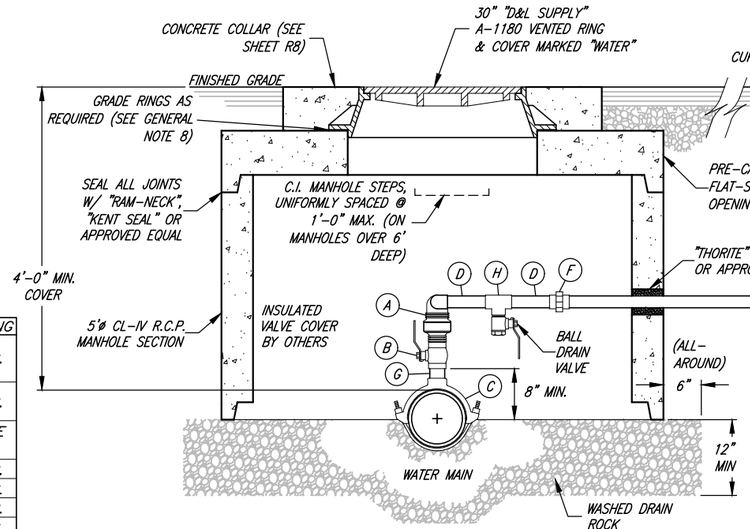
6. ALL WATER SYSTEM MATERIALS SHALL BE NEW (DISCOLORED PIPE OR PIPE MATERIALS STOCKPILED LONGER THAN 1 YEAR WILL NOT BE ACCEPTED BY THE CITY); USED MATERIALS ARE NOT ALLOWED.

7. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION ABOVE ALL SEWER MAINS AND LATERALS OF 18" VERTICAL AND 10'-0" HORIZONTAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER (DDW) RULES SECTION R309-550-7. EXCEPTIONS MUST BE APPROVED BY DDW.

8. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE

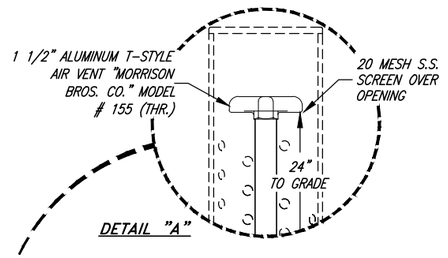
PIPE & FITTING SCHEDULE

NO.	DESCRIPTION	FITTING
A	2" COMBINATION AIR-VACUUM RELIEF VALVE "A.R.I." MODEL D-040 W/ NPT CONNECTIONS	THR.
B	2" BRASS BALL VALVE (1/4 TURN) "FORD" B11-777-HB-67-NL OR APPROVED EQUAL	THR.
C	2" NYLON COATED W/ DOUBLE S.S. STRAPS SERVICE SADDLE "ROMAC" 202NS OR APPROVED EQUAL	
D	1 1/2" SCH. 80 PVC PIPE	THR.
Da	1 1/2" POLY PIPE	THR.
E	1 1/2" GALV. STEEL 90° ELBOW	THR.
F	1 1/2" SCH. 80 PVC UNION	THR.
G	2" BRASS PIPE	THR.
H	1 1/2" SCH. 80 PVC TEE	THR.
I	1 1/2" GALV. STEEL PIPE	THR.

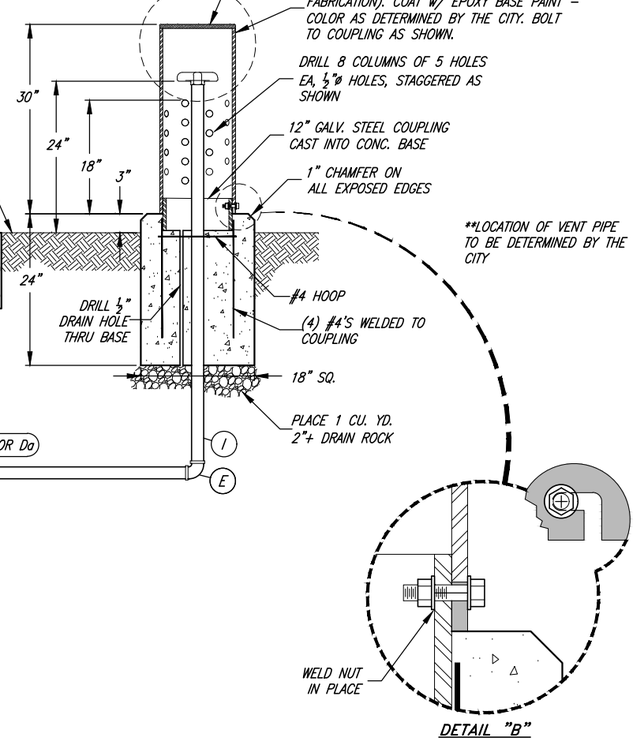


AIR/VACUUM RELIEF STATION

(BURIED WATER MAIN APPLICATION)



DETAIL "A"



DETAIL "B"

CITY ENGINEER
3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
FIRE HYDRANT, GATE VALVE, AND AIR/VACUUM RELIEF STATION DETAILS

SHEET: CW3
OF X SHEETS
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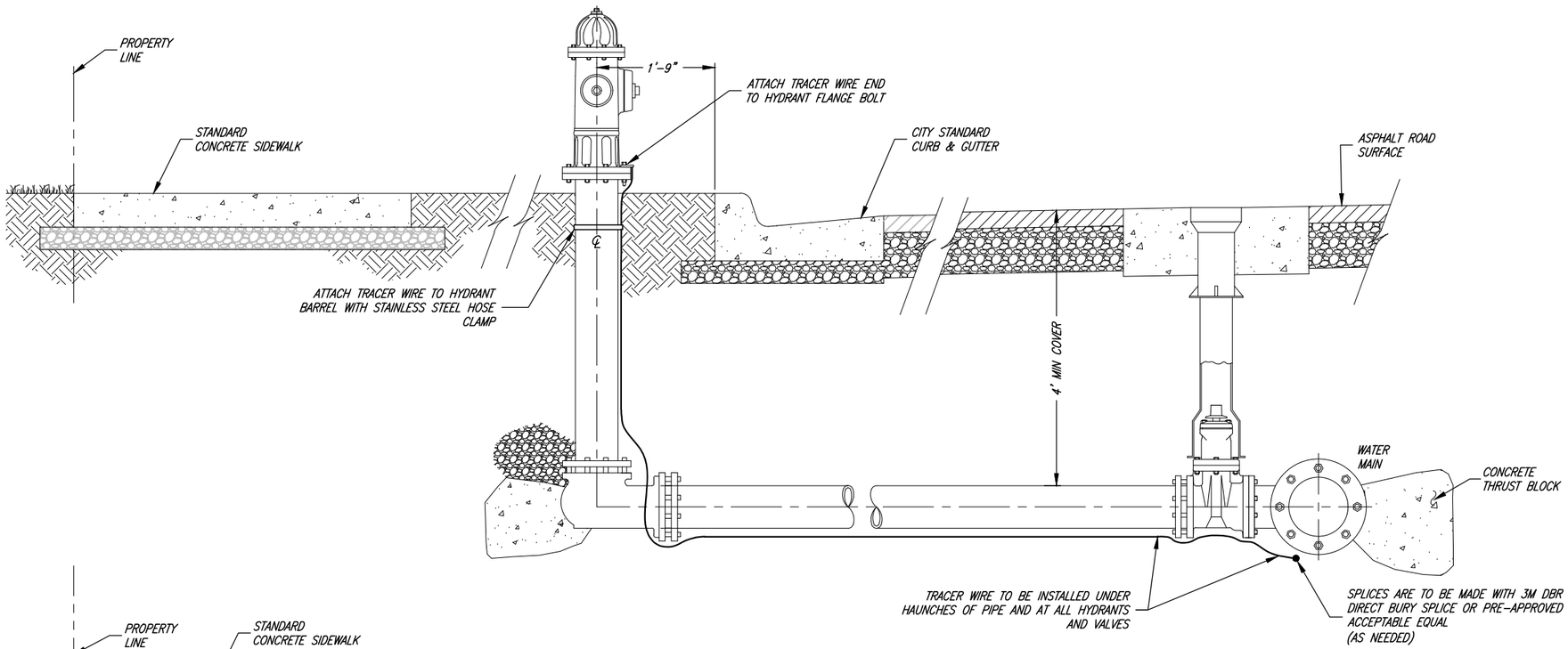

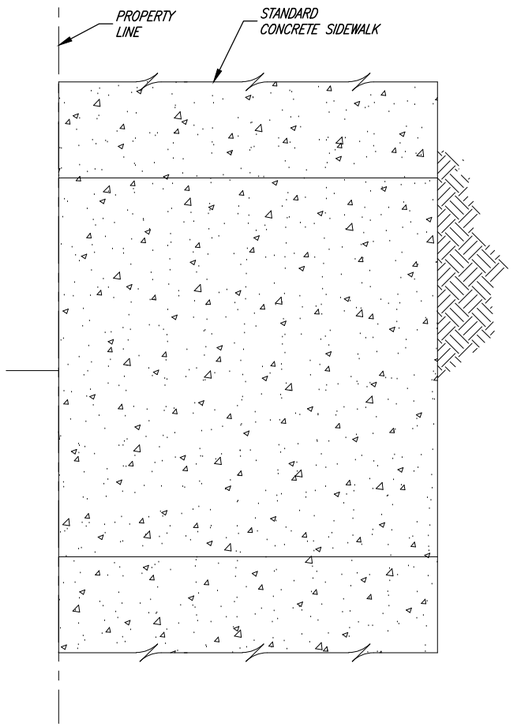

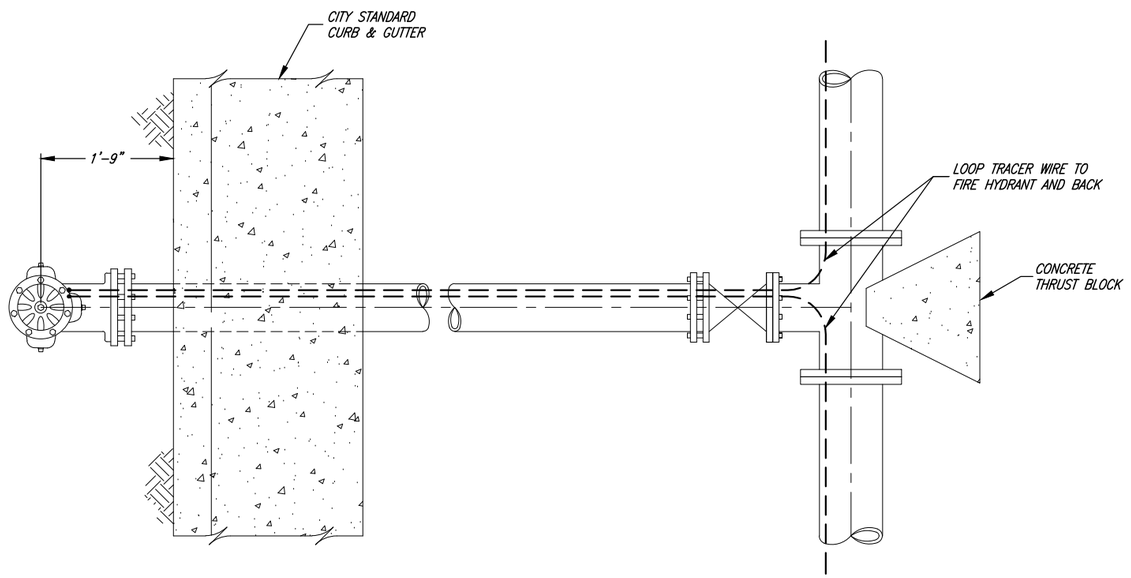

TRACER WIRE INSTALLATION

CITY STANDARD STREET SECTION (CURB & GUTTER)

NOTES:

1. ALL WATERLINES SHALL HAVE A MINIMUM 12 GA. INSULATED TRACER WIRE INSTALLED UNDER THE HAUNCHES OF THE PIPE PRIOR TO BACKFILLING.
2. TRACER WIRES SHALL TERMINATE AT ALL FIRE HYDRANTS. AT SERVICE SADDLES AND TAPPING SLEEVES, THE TRACER WIRE SHALL NOT BE ALLOWED TO BE PLACED BETWEEN THE SADDLE AND THE PIPE. A GROUNDING ROD SHALL BE INSTALLED AT ALL TRACER SYSTEM TERMINAL POINTS.
3. TRACER WIRE SHALL BE COPPER WIRE WITH BLUE INSULATION RATED FOR DIRECT BURIAL. ALL WIRE CONNECTORS SHALL BE 3M DBR DIRECT BURY SPLICE OR PRE-APPROVED ACCEPTABLE EQUAL AND SHALL BE WATERTIGHT TO PROVIDE ELECTRICAL CONTINUITY.
4. ALL TRACER WIRE SHALL BE TESTED FOR CONTINUITY IN THE PRESENCE OF THE CITY PRIOR TO TRENCH BACKFILL. ANY TRACER WIRE FOUND NOT TO BE CONTINUOUS AFTER TESTING SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR PRIOR TO TRENCH BACKFILL.

CITY ENGINEER

3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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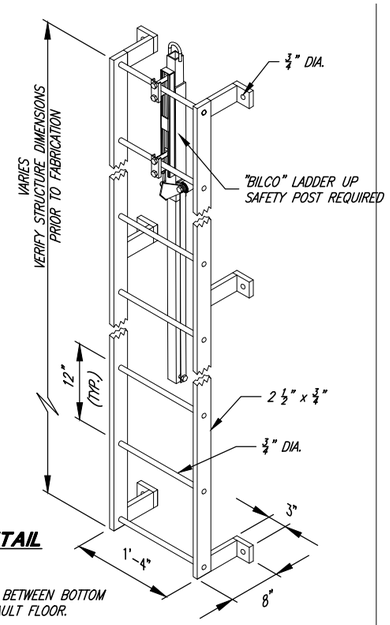
Clearfield City Public Works

CLEARFIELD CITY CORPORATION

PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS

TRACER WIRE INSTALLATION DETAILS

SHEET: CW4 OF X SHEETS 0

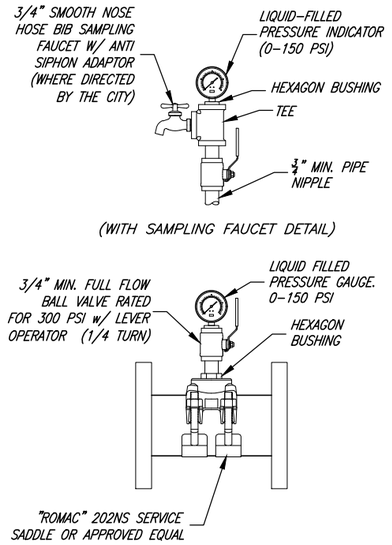


LADDER DETAIL

LADDER NOTES:

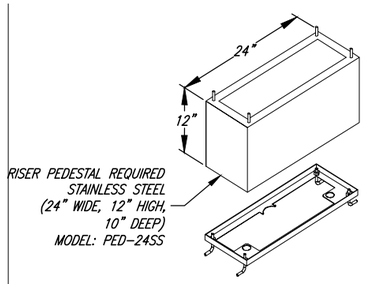
A1. MAX. 12" SPACING BETWEEN BOTTOM OF LADDER AND VAULT FLOOR.

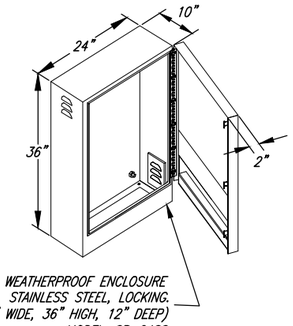
A2. HOT DIP GALVANIZE AFTER FABRICATION.

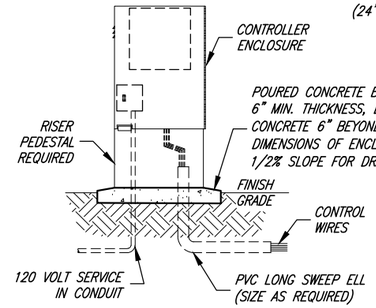


PRESSURE GAUGE ASSEMBLY

N.T.S.

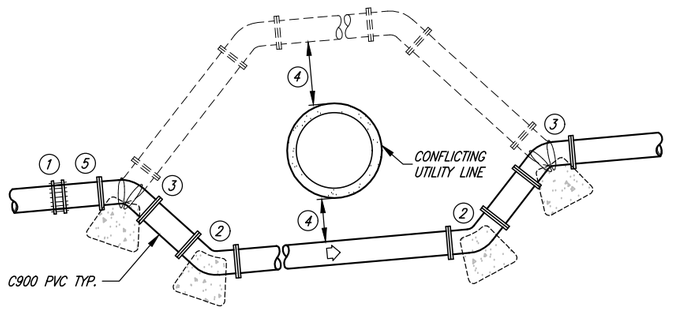






SCADA BOX

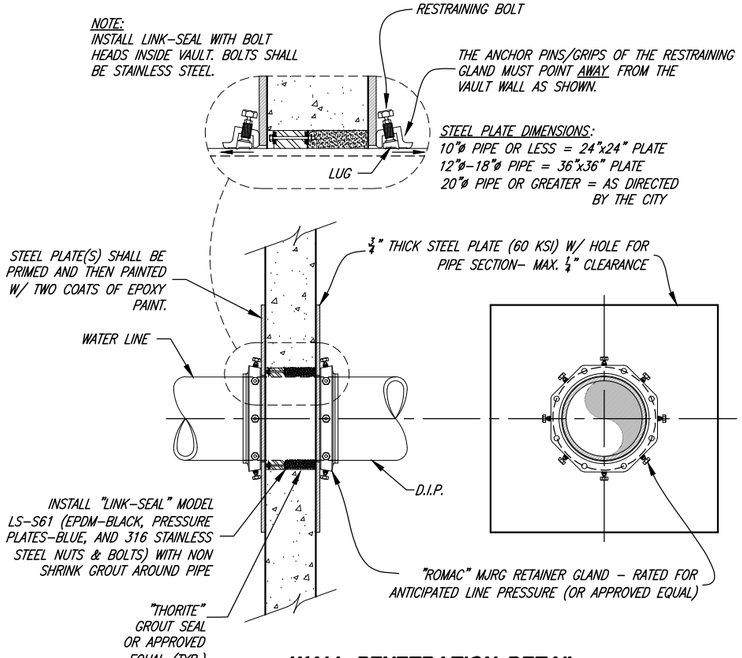
HEAVY-DUTY STAINLESS STEEL ENCLOSURE
N.T.S.



TYPICAL WATERLINE LOOP

1. TRANSITION COUPLING; "ROMAC" ALPHA, "ROMAC" MACRO, OR APPROVED EQUAL
2. MJ 45° BEND W/RETAINER GLANDS
3. CONSTRUCT THRUST BLOCKS AT EACH 45° BEND W/ (2) ½" THICK X 2" WIDE STAINLESS STEEL STRAPS WITH 6" HOOKS
4. MINIMUM OF 12" COVER BETWEEN THE WATERLINE AND CONFLICTING UTILITY LINE TO BE CROSSED, EXCEPT LOOPS INVOLVING SEWER MAINS WHERE A MINIMUM OF 18" VERTICAL COVER ABOVE THE SEWER MAIN IS REQUIRED. EXCEPTIONS MUST BE APPROVED BY THE UTAH DIVISION OF DRINKING WATER (DDW.)
5. AN AIR/VACUUM RELIEF VALVE MAY BE REQUIRED ON A CASE BY CASE BASIS AS DIRECTED BY THE CITY.

NOTE:
INSTALL LINK-SEAL WITH BOLT HEADS INSIDE VAULT. BOLTS SHALL BE STAINLESS STEEL.



WALL PENETRATION DETAIL

FOR PRECAST VAULT (TYP)

PIPE RESTRAINT

A1. FOR NOMINAL PIPE DIAMETERS 8" AND GREATER, ALL BENDS, CROSSES, TEES, REDUCERS, AND VALVES SHALL BE INSTALLED WITH RESTRAINING JOINTS ("MEGA-LUG", "ALPHA" OR APPROVED EQUAL).

A2. DESIGN SHALL ALSO BE REQUIRED TO ENSURE ADEQUATE RESTRAINT FOR PIPING JOINTS NEAR FITTINGS BASED ON PIPE DIAMETER AND PIPE PRESSURE.

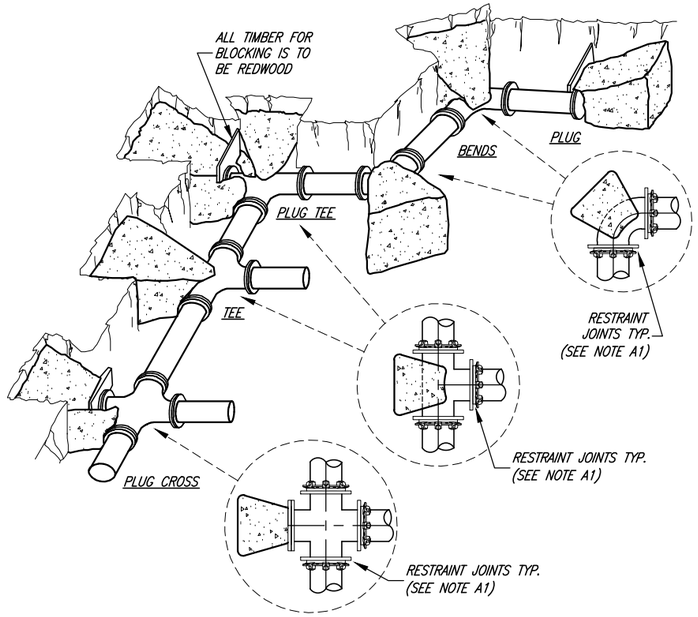
THRUST BLOCKING NOTES:

B1. CONCRETE SHALL NOT BE PLACED WITHIN 1-1/2" OF JOINTS AND BOLTS. COVER ALL METAL CONTACT AREAS WITH A POLY WRAP PRIOR TO CONCRETE PLACEMENT.

B2. IN THE ABSENCE OF A SOILS REPORT, ALL THRUST BLOCKS SHALL BE SIZED ON THE BASIS OF A MAXIMUM LATERAL BEARING VALUE FOR 2000 P.S.F. AND A THRUST RESULTING FROM 200% OF THE WATER LINE STATIC LINE TEST.

B3. THRUST BLOCKS ARE REQUIRED AT ALL BENDS OF 22-1/2° OR MORE. 11-1/4° BENDS SHALL HAVE RETAINER GLANDS.

B4. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI IN 28 DAYS.



TYPICAL RETAINER GLANDS & THRUST BLOCKING

THRUST PER PSI OF WATER PRESSURE AT VARIOUS FITTINGS

PIPE SIZE (IN.)	DEAD END OR TEE (LB.)	90° ELBOW (LB.)	45° ELBOW (LB.)	22-1/2° ELBOW (LB.)
4	19	27	15	7
6	39	55	30	15
8	67	94	51	26
10	109	154	84	43
12	155	218	119	61
14	210	296	161	82
16	272	383	209	106
18	351	494	269	137
20	434	611	333	169
24	623	878	487	244
30	947	1,332	722	377
36	1,356	1,905	1,032	542

NOTES:

C1. IN USING THE ABOVE TABLE, USE THE MAXIMUM INTERNAL PRESSURE ANTICIPATED (I.E. HYDROSTATIC TEST PRESSURE, POSSIBLE SURGE PRESSURE DUE TO PUMP SHUT OFF, ETC.).

C2. SEE SOILS REPORT FOR BEARING STRENGTH OF SOIL. IN THE ABSENCE OF A SOILS REPORT, AN AVERAGE SOIL (SPADABLE MEDIUM CLAY) CAN BE ASSUMED TO HAVE A BEARING STRENGTH OF 2000 P.S.F.

EXAMPLE:

8-INCH 90° ELBOW, PRESSURE 200 LB./SQ. IN.
FROM TABLE: THRUST = 94 X 200 = 18,800 LB.
ASSUME BEARING STRENGTH = 2.000 LB./SQ. FT.

18,8000 / 2,000 = 9.4 SQ. FT. AREA OF BEARING REQUIRED FOR THRUST BLOCK

CITY ENGINEER
3/8/2024
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Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - CULINARY WATER SYSTEM STANDARDS
THRUST BLOCK, WATERLINE LOOP, AND MISC. VAULT DETAILS

SHEET: CW9
OF X SHEETS
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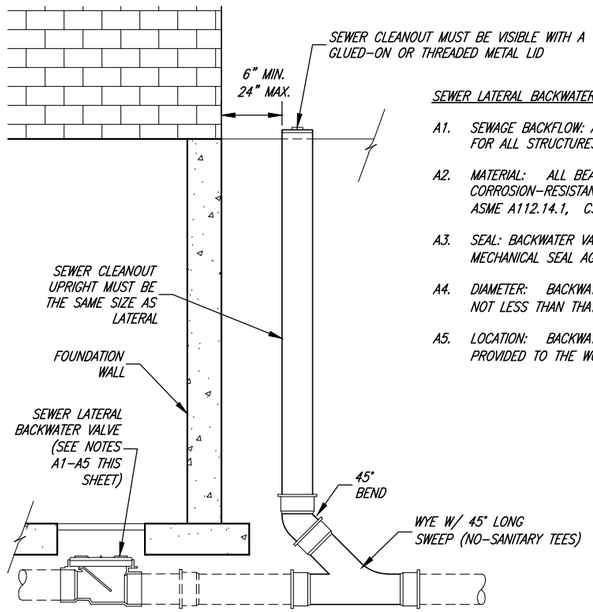


TYPICAL SEWER LATERAL HOME CONNECTION WITH CLEANOUT

SEWER LATERAL BACKWATER VALVE NOTES:

A1. SEWAGE BACKFLOW: A SEWER LATERAL BACKWATER VALVE SHALL BE INSTALLED FOR ALL STRUCTURES.

A2. MATERIAL: ALL BEARING PARTS OF BACKWATER VALVES SHALL BE OF CORROSION-RESISTANT MATERIAL. BACKWATER VALVES SHALL COMPLY WITH ASME A112.14.1, CSA CAN/CSA-B181.1 OR CSA CAN/CSA-B181.2. (IPC 715.2)

A3. SEAL: BACKWATER VALVES SHALL BE SO CONSTRUCTED AS TO PROVIDE A MECHANICAL SEAL AGAINST BACKFLOW. (IPC 715.3)

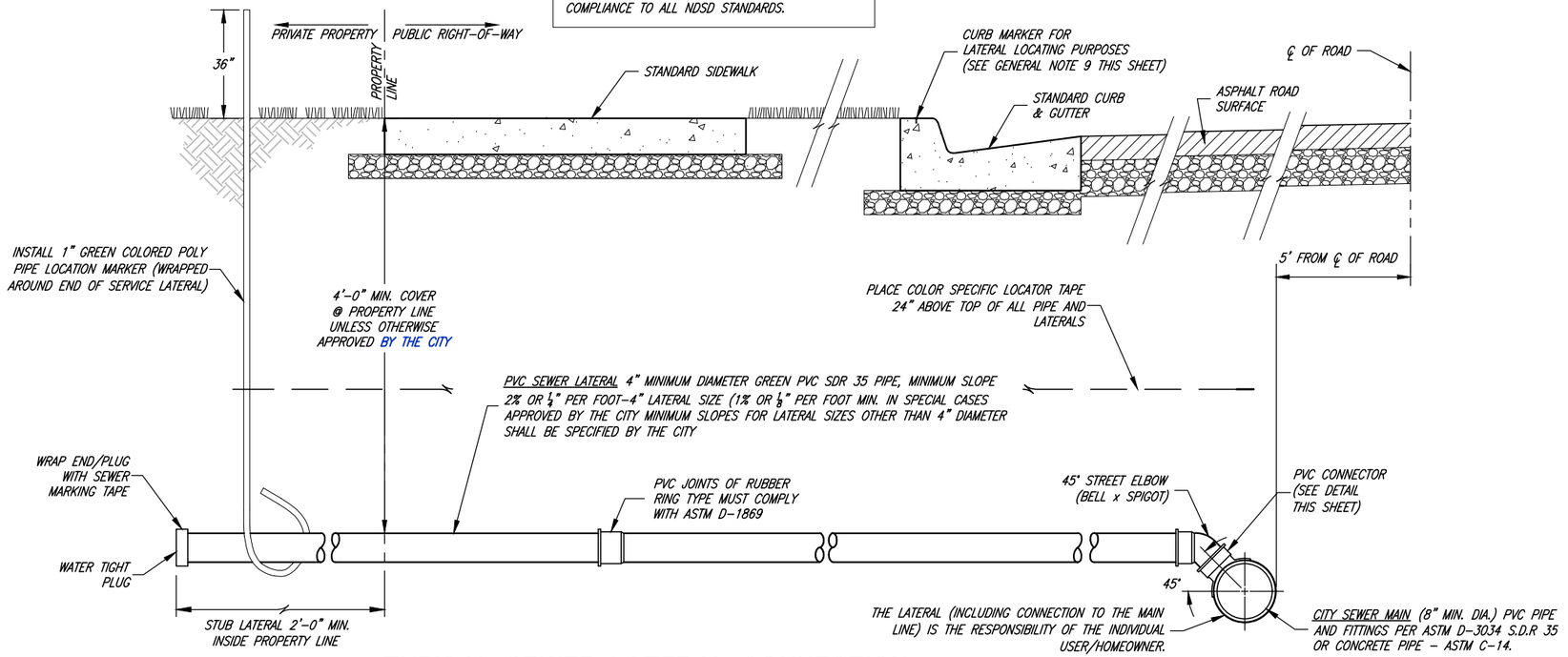
A4. DIAMETER: BACKWATER VALVES, WHEN FULLY OPENED, SHALL HAVE A CAPACITY NOT LESS THAN THAT OF THE PIPES IN WHICH THEY ARE INSTALLED. (IPC 715.4)

A5. LOCATION: BACKWATER VALVES SHALL BE INSTALLED SO THAT ACCESS IS PROVIDED TO THE WORKING PARTS FOR SERVICE AND REPAIR. (IPC 715.6)

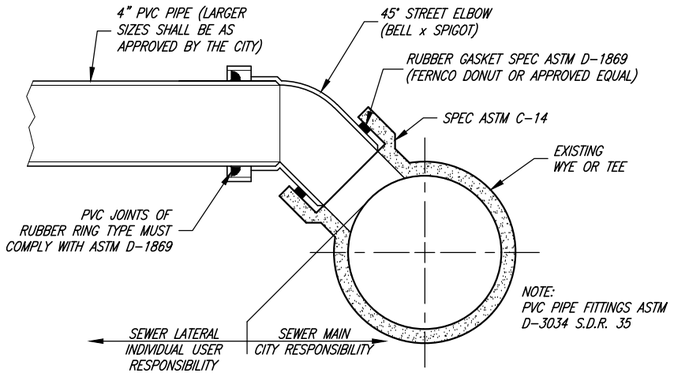
GENERAL NOTES:

1. ALL SANITARY SEWER LATERAL CONNECTIONS ON SEWER MAINS IN NEW SUBDIVISIONS SHALL BE MADE WITH IN LINE PRE-FORMED WYE'S OR TEE'S UNLESS OTHERWISE APPROVED BY THE CITY.
2. FLOWLINE ELEVATION OF LATERALS SHALL EQUAL THE INSIDE TOP OF PIPE ON MAINLINE AT THE CONNECTING POINT (THE LATERAL TAP SHALL BE IN THE TOP QUARTER OF THE SEWER MAIN LINE PREFERABLY IN THE 10:00 OR 2:00 POSITION).
3. SANITARY SEWER SERVICE LATERAL CONNECTIONS SHALL NOT BE ALLOWED IN SEWER MANHOLES.
4. SANITARY SEWER MAINS AND LATERALS SHALL BE "GREEN" IN COLOR. PREVIOUS YEARS PIPE COLORS VARY THROUGHOUT THE CITY. **CONTRACTOR TO VERIFY EXISTING PIPE PRIOR TO MAKING ANY CONNECTION.**
5. INSERTA TEE PRODUCT IS NOT APPROVED BY THE CITY.
6. ALL CLEANOUTS SHALL BE MARKED AND FITTED WITH A METAL LID FOR LOCATION PURPOSES.
7. ALL CULINARY WATER MAINS AND SERVICES MUST MAINTAIN A MINIMUM SEPARATION ABOVE ALL SEWER MAINS AND LATERALS OF 18" VERTICAL AND 10'-0" HORIZONTAL IN ACCORDANCE WITH THE STATE OF UTAH DIVISION OF DRINKING WATER (DDW) RULES SECTION R309-550-7. EXCEPTIONS MUST BE APPROVED BY DDW.
8. ALL SANITARY SEWER LINES SHALL BE INSPECTED BY MEANS OF VIDEO CAMERA AND AIR TESTED WHEN CONSTRUCTED. SEE APWA 33 08 00 AND CITY MODIFICATIONS FOR MORE INFORMATION.
9. STAMPED STAINLESS STEEL PINS (UTILITY WASHERS) USED FOR LATERAL LOCATING ARE REQUIRED BY THE CITY. PINS SHALL BE PROVIDED BY THE CITY AND INSTALLED BY THE CONTRACTOR DURING ALL NEW CONSTRUCTION OR RESTORED WHEN REPLACING DAMAGED CURB & GUTTER DUE TO ANY CONSTRUCTION RELATED ACTIVITY. PINS SHALL BE STAMPED "S" FOR SANITARY SEWER LATERALS AND "W" FOR CULINARY WATER LATERALS.
10. THE LOCATION OF THE SEWER LATERAL MUST BE DOCUMENTED AND SUBMITTED TO THE CITY ON SCALED AS-BUILT DRAWINGS

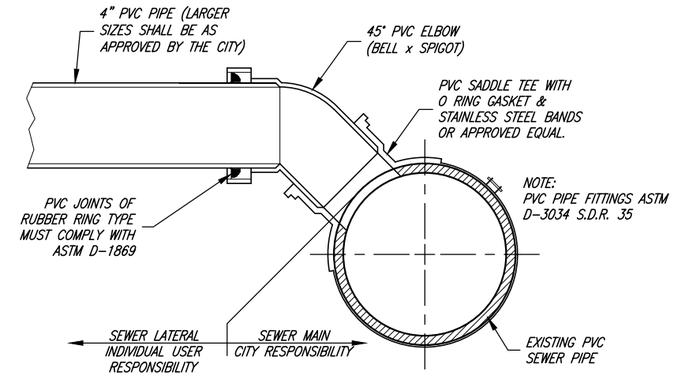
NORTH DAVIS SEWER DISTRICT NOTE:
ANY SANITARY SEWER WORK DONE INVOLVING THE NORTH DAVIS SEWER DISTRICT (NDSD) WILL REQUIRE WRITTEN APPROVAL FROM NDSD AND MUST BE IN COMPLIANCE TO ALL NDSD STANDARDS.



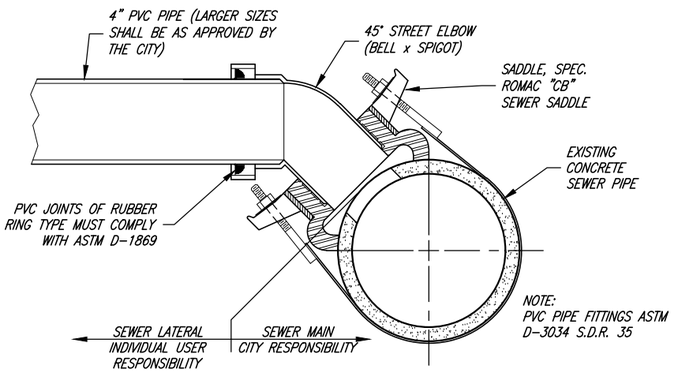
TYPICAL SEWER LATERAL CONNECTION



CONNECTING INTO EXISTING WYE OR TEE



TAPPING INTO EXISTING PVC PIPE



TAPPING INTO EXISTING CONCRETE PIPE

CITY ENGINEER				SCALE:	CONSULTING ENGINEERS	CLEARFIELD CITY CORPORATION	SHEET:
3/8/2024				N.T.S.	6080 Fashion Point Drive	PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS	SS1
DATE	REV.	DATE	APPR.		South Ogden, Utah 84403 (801) 476-9767	SEWER LATERAL & MAIN LINE CONNECTION DETAILS	OF X SHEETS
					www.jonescivil.com		0

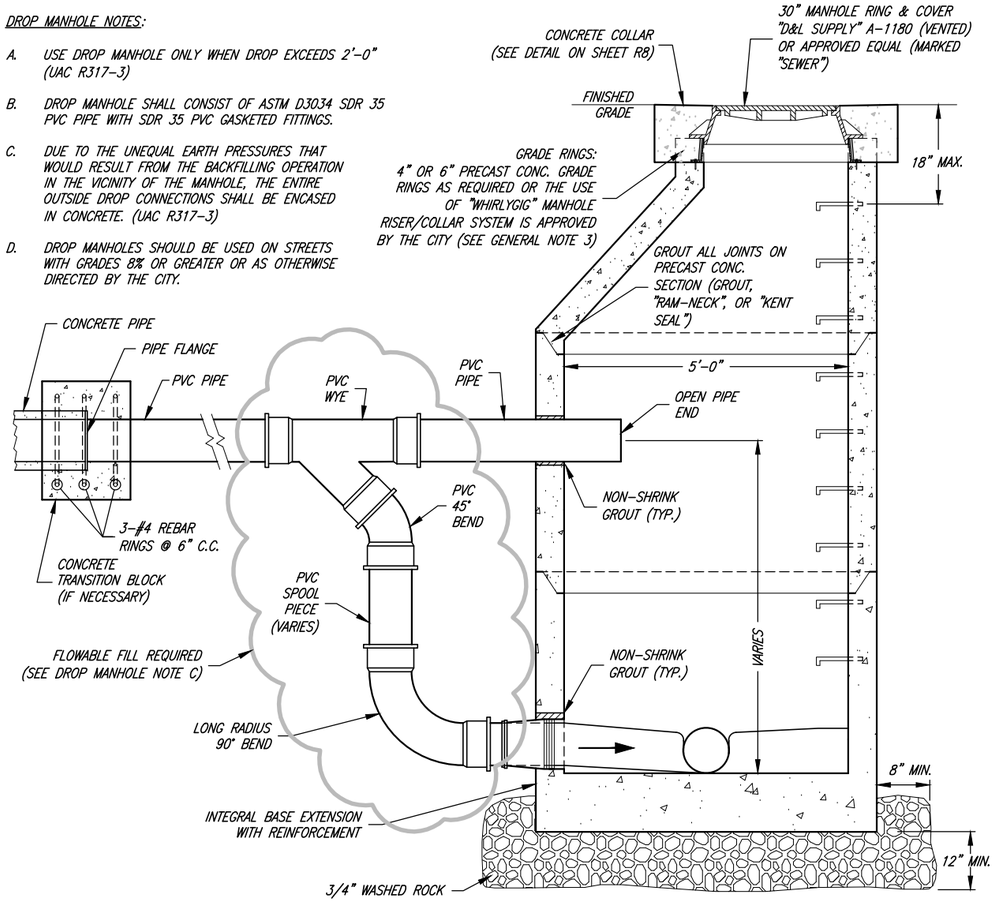
DROP MANHOLE NOTES:

A. USE DROP MANHOLE ONLY WHEN DROP EXCEEDS 2'-0" (UAC R317-3)

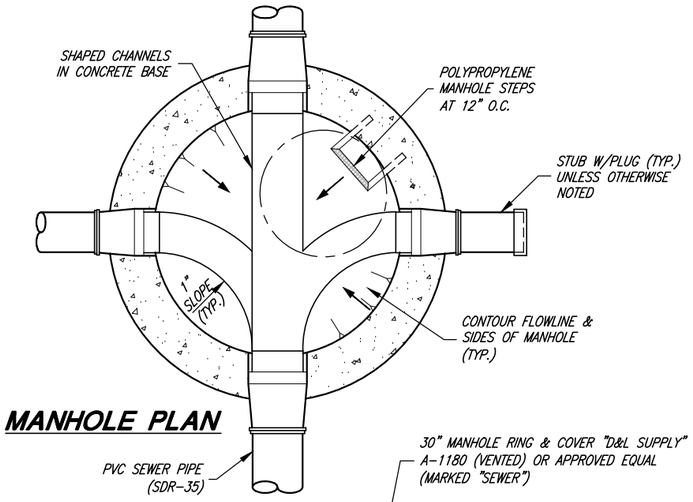
B. DROP MANHOLE SHALL CONSIST OF ASTM D3034 SDR 35 PVC PIPE WITH SDR 35 PVC GASKETED FITTINGS.

C. DUE TO THE UNEQUAL EARTH PRESSURES THAT WOULD RESULT FROM THE BACKFILLING OPERATION IN THE VICINITY OF THE MANHOLE, THE ENTIRE OUTSIDE DROP CONNECTIONS SHALL BE ENCASED IN CONCRETE. (UAC R317-3)

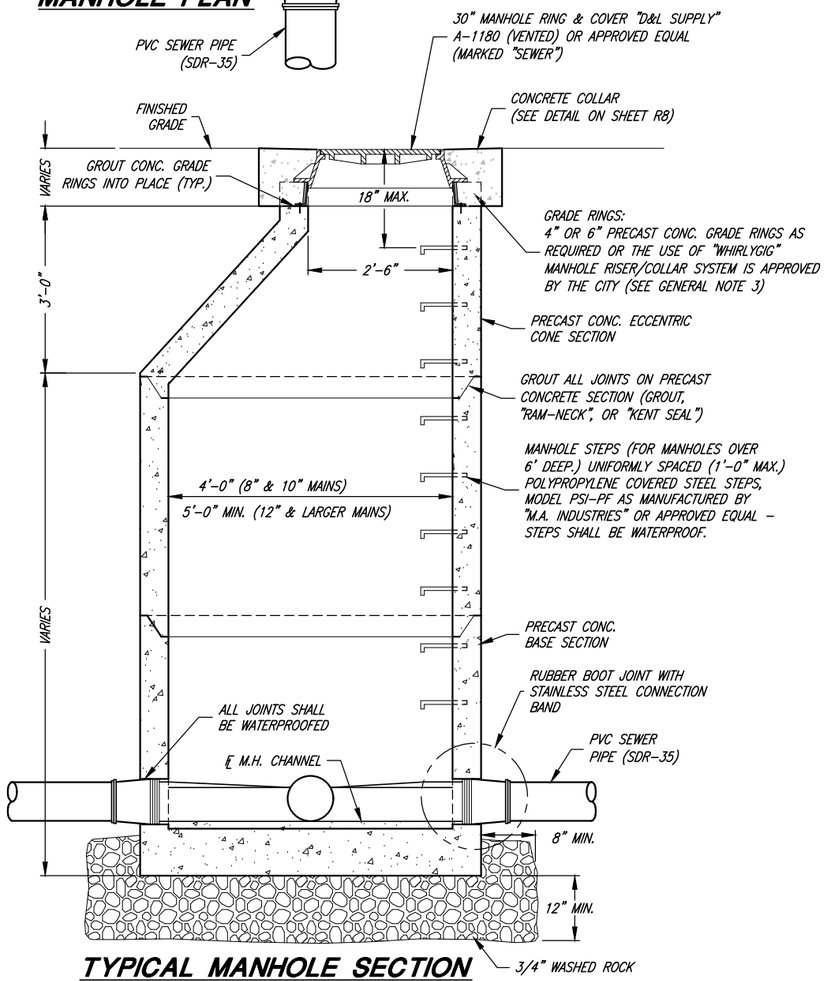
D. DROP MANHOLES SHOULD BE USED ON STREETS WITH GRADES 8% OR GREATER OR AS OTHERWISE DIRECTED BY THE CITY.



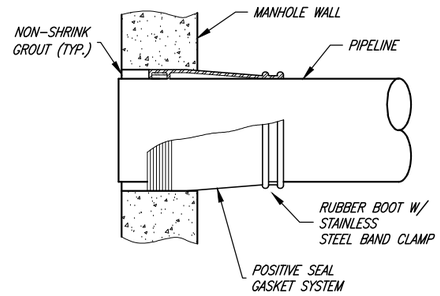
TYPICAL DROP MANHOLE SECTION



MANHOLE PLAN



TYPICAL MANHOLE SECTION



RUBBER BOOT DETAIL

NORTH DAVIS SEWER DISTRICT NOTE:
ANY SANITARY SEWER WORK DONE INVOLVING THE NORTH DAVIS SEWER DISTRICT (NDSD) WILL REQUIRE WRITTEN APPROVAL FROM NDSD AND MUST BE IN COMPLIANCE TO ALL NDSD STANDARDS.

GENERAL NOTES:

1. SECURE INVERTS IN ALL MANHOLES DURING CONSTRUCTION SO AS TO PREVENT GRAVEL AND OTHER DEBRIS FROM COLLECTING INSIDE.
2. A LARGER DIAMETER MANHOLE MAY BE REQUIRED BY THE CITY AFTER EVALUATION OF THE NUMBER, SIZE, AND ANGLE OF THE PIPES THAT CONNECT TO THE MANHOLE.
3. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE.
4. ALL TERMINATING SEWER MAINS SHALL END WITH A CITY STANDARD MANHOLE.
5. SERVICE LATERAL CONNECTIONS SHALL NOT BE ALLOWED IN SEWER MANHOLES.
6. ALL SANITARY SEWER LINES SHALL BE INSPECTED BY MEANS OF VIDEO CAMERA AND AIR TESTED WHEN CONSTRUCTED. SEE APWA 33 08 00 AND CITY MODIFICATIONS FOR MORE INFORMATION.
7. WHERE THE DIFFERENCE IN ELEVATION BETWEEN THE INCOMING SEWER AND MANHOLE INVERT IS LESS THAN 24 INCHES, THE INVERT SHOULD BE FILLETED.
8. FLAT MANHOLE RINGS & COVERS (SLAB CONSTRUCTION) ARE NOT ALLOWED ON ANY MANHOLE CONE SECTION.
9. ALL SEWER MANHOLE COVERS TO BE VENTED UNLESS OTHERWISE NOTED.
10. GREASE INTERCEPTORS, OIL/WATER SEPARATORS, SAND INTERCEPTORS, ETC. TO BE CONSTRUCTED AND IN COMPLIANCE WITH ALL NORTH DAVIS SEWER DISTRICT STANDARDS.

CITY ENGINEER
3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

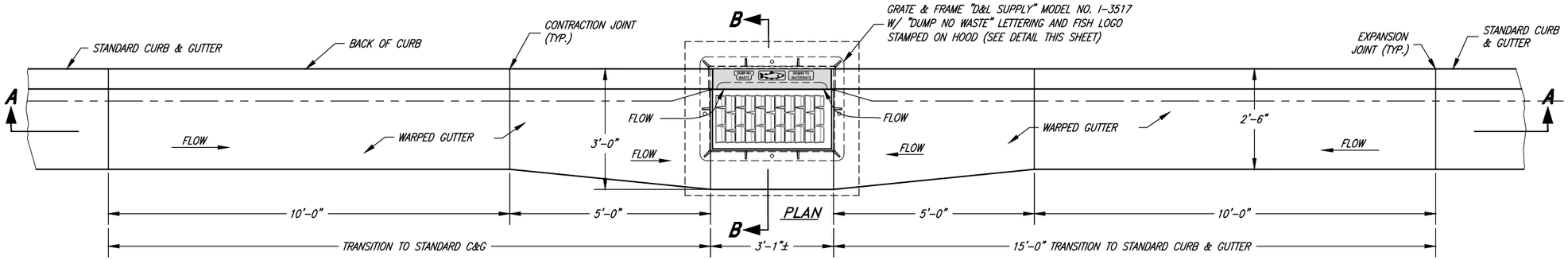
JONES & ASSOCIATES
CONSULTING ENGINEERS
6080 Fashion Point Drive
South Ogden, Utah 84403 (801) 476-9767
www.jonescivil.com

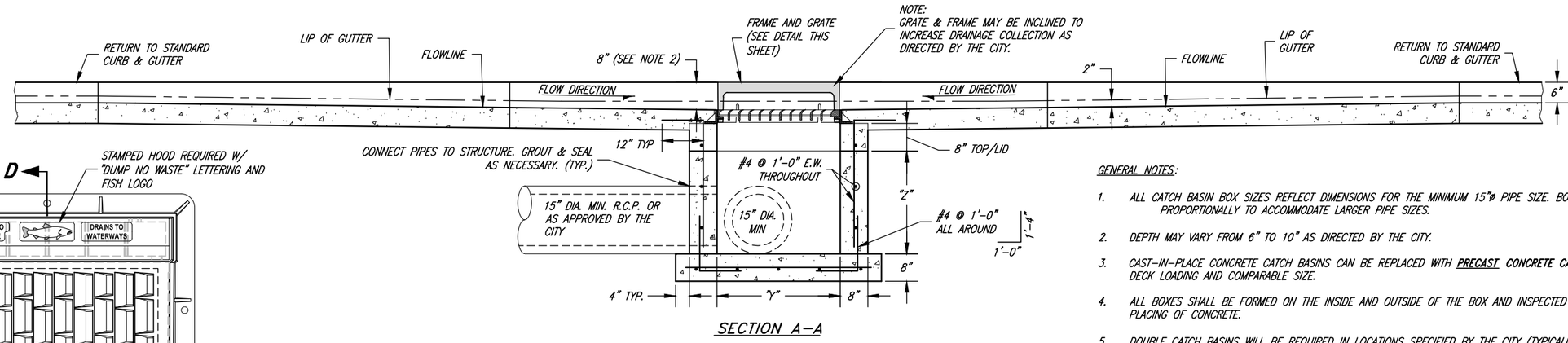
Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - SANITARY SEWER SYSTEM STANDARDS

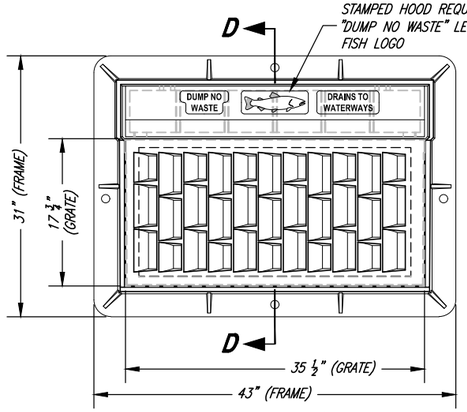
SANITARY SEWER MANHOLE DETAILS

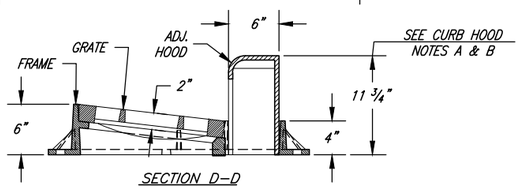
SHEET: SS2
OF X SHEETS
0





SECTION A-A





SECTION D-D

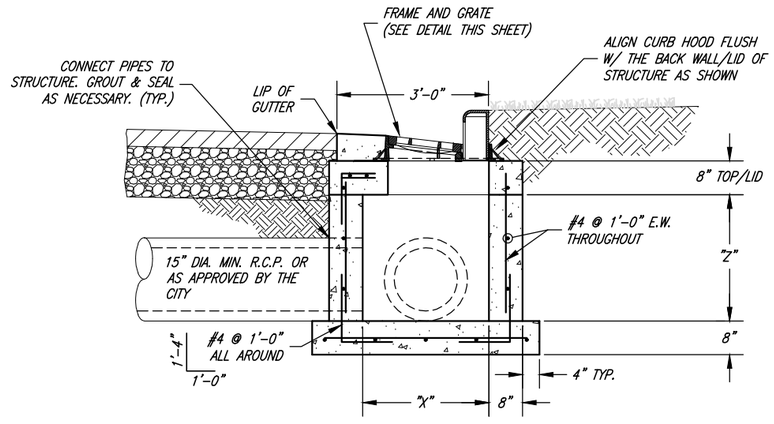
CURB HOOD INLET FRAME & TYPE "L" GRATE

"D&L SUPPLY" I-3517	
PRODUCT NUMBER:	
GRATE:	I-3517-02
ADJ HOOD:	I-3516-13
FRAME:	I-3516-R8

CURB HOOD NOTES:

A. 13 13/16" APPROXIMATE MAXIMUM HEIGHT FOR THE ADJUSTABLE HOOD.
B. 9 9/16" APPROXIMATE MINIMUM HEIGHT FOR THE ADJUSTABLE HOOD.

SINGLE HOODED CATCH BASIN



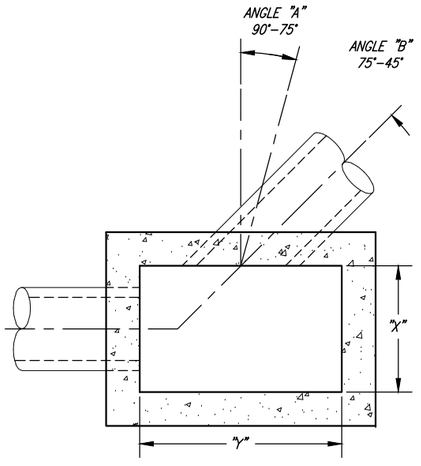
SECTION B-B

GENERAL NOTES:

1. ALL CATCH BASIN BOX SIZES REFLECT DIMENSIONS FOR THE MINIMUM 15"ø PIPE SIZE. BOX DIMENSIONS MUST INCREASE PROPORTIONALLY TO ACCOMMODATE LARGER PIPE SIZES.
2. DEPTH MAY VARY FROM 6" TO 10" AS DIRECTED BY THE CITY.
3. CAST-IN-PLACE CONCRETE CATCH BASINS CAN BE REPLACED WITH **PRECAST CONCRETE CATCH BASINS** WITH HL-93 DECK LOADING AND COMPARABLE SIZE.
4. ALL BOXES SHALL BE FORMED ON THE INSIDE AND OUTSIDE OF THE BOX AND INSPECTED BY THE CITY PRIOR TO THE PLACING OF CONCRETE.
5. DOUBLE CATCH BASINS WILL BE REQUIRED IN LOCATIONS SPECIFIED BY THE CITY (TYPICALLY IN LOW SPOTS OR WHERE ADDITIONAL INLET CAPACITY IS NEEDED). FOR CONSTRUCTION OF DOUBLE CATCH BASIN, SEE DETAILS AND NOTES ON SHEET SD2b.
6. STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.
7. ALTERNATE STRUCTURE (E.G. COMBO BOXES) MAY BE USED WITH APPROVAL OF THE CITY. STRUCTURES SHALL FOLLOW APWA STANDARD PLANS AND BE A COMMON SIZE.

CATCH BASIN DIMENSION TABLE

PIPE SIZE (IN.)	"X"	SINGLE CATCH BASIN "Y" (ANGLE A)	SINGLE CATCH BASIN "Y" (ANGLE B)	"Z" MIN.
15	2'-6"	3'-0"	3'-0"	2'-0"
18	2'-6"	3'-0"	4'-0"	2'-6"
21	4'-0"	4'-0"	4'-0"	3'-0"
24	4'-0"	4'-0"	5'-0"	3'-0"
30	4'-0"	4'-0"	6'-0"	3'-6"
36	4'-0"	5'-0"	6'-0"	4'-0"
42	6'-0"	6'-0"	7'-0"	5'-0"
48	6'-0"	6'-0"	8'-0"	5'-6"



CITY ENGINEER
3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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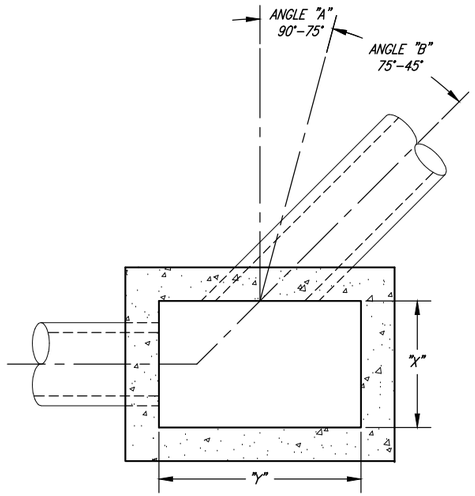
CLEARFIELD CITY CORPORATION
PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS
SINGLE HOODED CATCH BASIN DETAILS

SHEET: SD1
OF X SHEETS
0

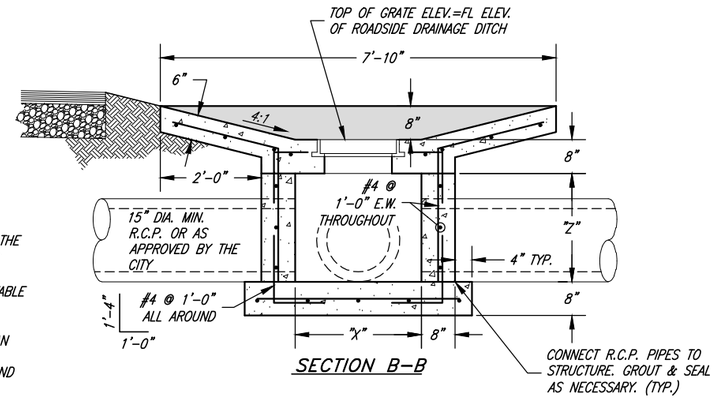


DRAINAGE DITCH INLET BOX DIMENSION TABLE

PIPE SIZE (IN.)	"X"	INLET BOX "Y" (ANGLE A)	INLET BOX "Y" (ANGLE B)	"Z" MIN.
15	2'-6"	4'-0"	4'-0"	2'-0"
18	2'-6"	4'-0"	4'-0"	2'-6"
21	4'-0"	4'-0"	4'-0"	3'-0"
24	4'-0"	4'-0"	5'-0"	3'-0"
30	4'-0"	4'-0"	6'-0"	3'-6"
36	4'-0"	4'-0"	6'-0"	4'-0"
42	6'-0"	6'-0"	7'-0"	5'-0"
48	6'-0"	6'-0"	8'-0"	5'-6"

GENERAL NOTE:

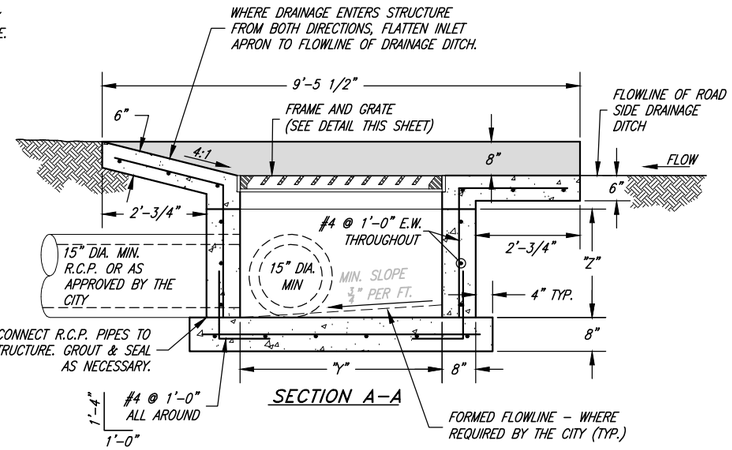
STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.



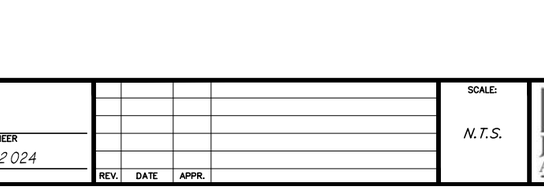
SECTION B-B

DRAINAGE BOX NOTES:

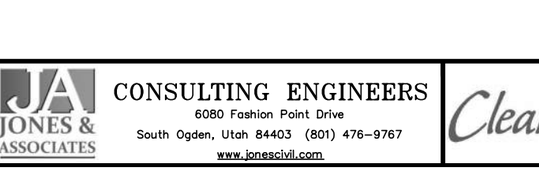
1. ALL BOX SIZES REFLECT DIMENSIONS FOR THE MINIMUM 15"ø PIPE SIZE. BOX DIMENSIONS MUST INCREASE PROPORTIONALLY TO ACCOMMODATE LARGER PIPE SIZES. (SEE TABLE THIS SHEET)
2. CAST-IN-PLACE CONCRETE STRUCTURES CAN BE REPLACED WITH PRECAST CONCRETE STRUCTURES WITH HL-93 DECK LOADING AND COMPARABLE SIZE.
3. ALL BOXES SHALL BE FORMED ON THE INSIDE AND OUTSIDE OF THE BOX AND INSPECTED BY THE CITY PRIOR TO THE PLACING OF CONCRETE.



SECTION A-A



SECTION C-C



GRATE DETAIL

SECTION E-E

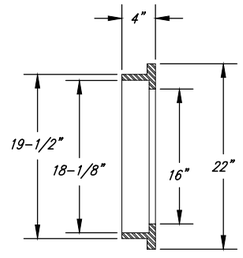
FRAME & GRATE DETAILS

FRAME AND GRATE NOTES:

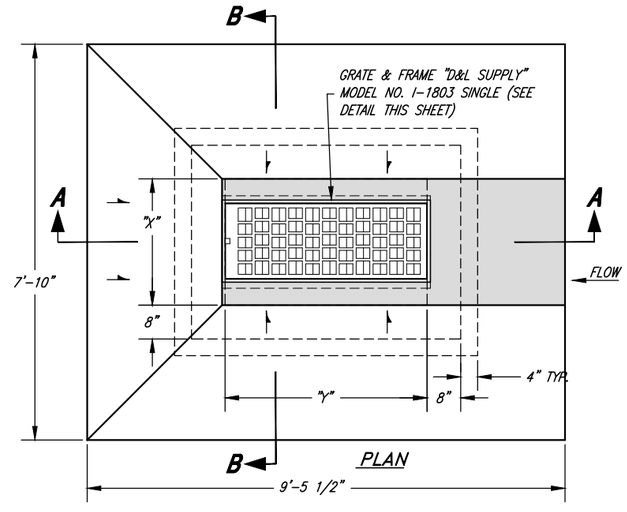
A1. GRATE AND FRAME SHALL BE AS MANUFACTURED BY "D&L SUPPLY" I-1803

B1. BICYCLE SAFE GRATE REQUIRED.

C1. "OR EQUAL" GRATES AND FRAMES WILL BE CONSIDERED AS APPROVED BY THE CITY.



SECTION D-D



PLAN

DRAINAGE DITCH / SWALE INLET BOX

CITY ENGINEER				SCALE:	CLEARFIELD CITY CORPORATION
3/8/2024				N.T.S.	PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS
DATE	REV.	DATE	APPR.		DRAINAGE INLET BOX AND GENERAL GRATE & FRAME DETAILS

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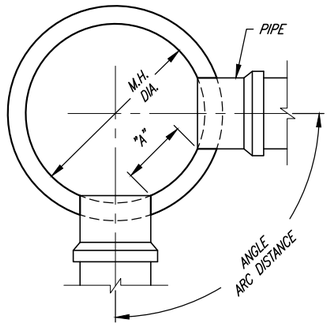
SHEET: SD3 OF X SHEETS 0

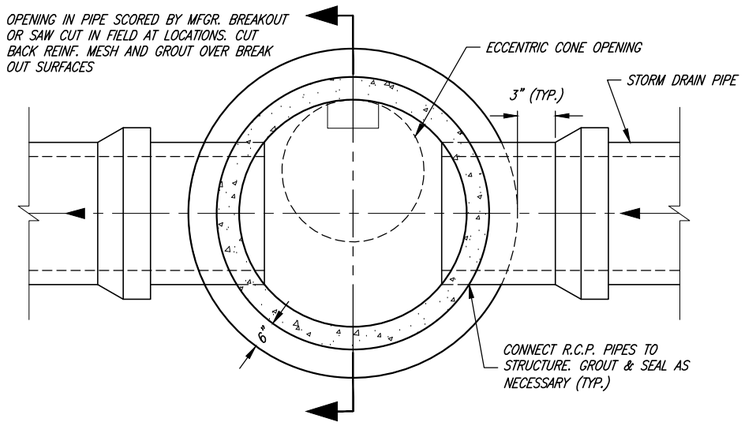
PIPE SIZES

M.H. SIZE	IN-LINE M.H.	JUNCTION MANHOLE (ANGLE / ARC DISTANCE)								
	180°	90°	85°	80°	75°	70°	65°	60°	55°	50°	45°
4'ø M.H.	15"–24"	15"–18"	15"–18"	15"	15"	--	--	--	--	--	--
5'ø M.H.	27"–30"	21"–24"	21"–24"	18"–21"	18"–21"	15"–18"	15"–18"	15"	--	--	--
6'ø M.H.	36"–48"	27"–30"	27"–30"	24"–27"	24"	21"–24"	21"	18"	15"–18"	15"	--
7'ø M.H.	54"	36"	36"	30"	27"–30"	27"	24"	21"–24"	21"	18"	15"
8'ø M.H.	60"	42"	42"	36"	36"	30"	27"–30"	27"	24"	21"	18"

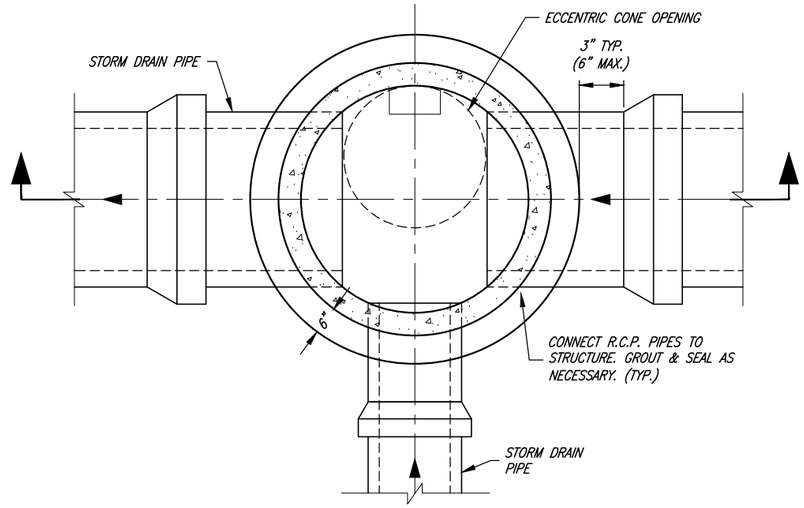


MANHOLE SIZING NOTES:

1. SUGGESTED "A" DISTANCE IS 6" OR GREATER FOR 48", 60" AND 72" DIAMETER MANHOLES
2. SUGGESTED "A" DISTANCE IS 8" OR GREATER FOR 84" AND 96" DIAMETER MANHOLES



TYPICAL LINE MANHOLE



TYPICAL JUNCTION MANHOLE

GENERAL NOTES:

A. LARGER DIAMETER MANHOLE MAY BE REQUIRED BY THE CITY ENGINEER AFTER EVALUATION OF THE NUMBER, SIZE, AND ANGLE OF THE PIPES THAT CONNECT TO THE MANHOLE.

B. NO MORE THAN 12" OF GRADE RINGS TO BE ALLOWED ON ANY MANHOLE

C. PLYWOOD COVERS SHALL BE USED AT MANHOLE FLOOR TO COVER FLOWLINE DURING CONSTRUCTION AND MAINTENANCE ACTIVITIES.

D. ALL INTERIOR JOINTS SHALL BE SMOOTH AND EVENLY GROUTED WITH NON-SHRINK GROUT MIX.

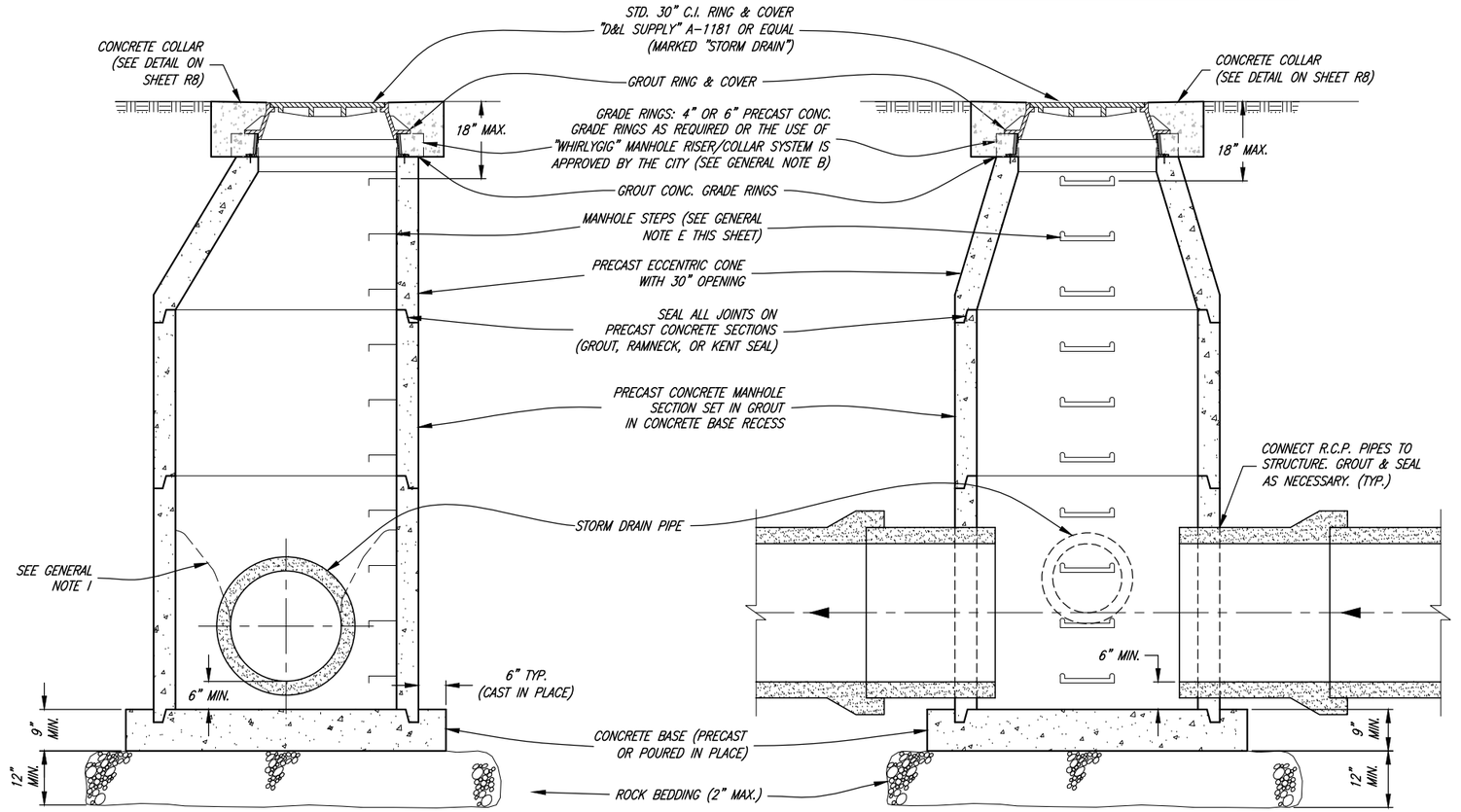
E. MANHOLE STEPS UNIFORMLY SPACED (1'-0" MAX) ON ALL MANHOLES. POLYPROPYLENE COVERED STEEL STEPS, MODEL PSI-PF AS MANUFACTURED BY "M.A. INDUSTRIES" OR APPROVED EQUAL - INSTALLATION OF STEPS SHALL BE WATERPROOF.

F. STORM DRAIN LINES SHALL BE 15 INCH MINIMUM DIAMETER REINFORCED CONCRETE PIPE (RCP), OF APPROPRIATE CLASS.

G. FLAT MANHOLE RINGS & COVERS (SLAB CONSTRUCTION) ARE NOT ALLOWED ON ANY MANHOLE CONE SECTION.

H. THE USE OF STORM DRAIN UTILITY VAULTS (BOXES) WITH STD. 30" C.I. RING & COVER ("D&L SUPPLY" A-1181 MARKED "STORM DRAIN") AND A CONCRETE COLLAR IS ACCEPTED WHEN APPROVED BY THE CITY.

I. CONTOUR THE FLOWLINE & SIDES OF ANY LINE OR JUNCTION MANHOLES WHEN DIRECTED BY THE CITY.



CITY ENGINEER

3/8/2024
DATE

REV.	DATE	APPR.

SCALE: N.T.S.

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6080 Fashion Point Drive
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Clearfield City Public Works

CLEARFIELD CITY CORPORATION

PUBLIC WORKS - STORM DRAIN SYSTEM STANDARDS

STORM DRAIN MANHOLE DETAILS

SHEET: SD4 OF X SHEETS 0

CITY OWNED STREET LIGHT STYLES AND LOCATIONS

SL-1 SINGLE ACORN STREET LIGHT:

- FIXTURE STYLE: LED LAMP POST (FULLY DARK-SKY COMPLIANT)
- POLE HEIGHT: 14'-0"
- LOCATION: COMMERCIAL, RESIDENTIAL DEVELOPMENTS, CUL-DE-SACS, ACCESS ROADS, AND INTERSECTIONS
- SPACING: (A) FORM BASE CODE AREAS: 40'-0" MIN, 80'-0" MAX., SAME SIDE STREET (NON-ALTERNATING)

(B) RESIDENTIAL DEVELOPMENTS: MAXIMUM 400'-0", ON ALTERNATING SIDES OF THE STREET

(OR AS OTHERWISE APPROVED/DIRECTED BY THE CITY)

OPTIONAL SL-2 DOUBLE ACORN STREET LIGHT:

- FIXTURE STYLE: DOUBLE LED LAMP POST (FULLY DARK-SKY COMPLIANT)
- POLE HEIGHT: 14 FEET
- LOCATION: **700 SOUTH (SR193), STATE STREET (SR126)**
- SPACING: 60 FT MIN, 90 FT MAX., SAME SIDE STREET (NON-ALTERNATING)

STREET LIGHT GENERAL NOTES

LIGHT FIXTURES AND POLES:

1. **ALL SPECIFIED BRANDS, STYLES, AND MATERIALS SHOWN ON THESE DRAWINGS ARE "CITY STANDARDS." OTHER EQUIVALENT BRANDS IN THE SAME STYLE OF POLE AND DECORATIVE BASE MAY BE USED WITH THE PRIOR WRITTEN APPROVAL OF THE CITY.**

2. THE SL-1 AND SL-2 STREET LIGHT (LIGHT POLE AND LED FIXTURE) TO BE PAID FOR, FURNISHED, AND INSTALLED BY THE DEVELOPER/CONTRACTOR.

DEVELOPER/CONTRACTOR GENERAL NOTES:

3. THE COST OF ALL NEW DEVELOPMENT STREET LIGHTS IS THE RESPONSIBILITY OF THE DEVELOPER.

4. DEVELOPER/CONTRACTOR SHALL CONSULT WITH THE POWER COMPANY (RMP) ON THE PULL BOX LOCATION, PEDESTAL LOCATION, CONDUIT LOCATION, FOOTING INSTALLATION, AND DIGGING PRIOR TO ANY CONSTRUCTION.

5. ALL SPECIFICATIONS AND MODEL NUMBERS FOR WIRE, CONDUIT, FUSE KITS, SPLICE KITS, JUNCTION BOXES, AND CONNECTIONS MUST BE APPROVED BY CITY PRIOR TO INSTALLATION

6. DEVELOPER/CONTRACTOR TO FURNISH AND INSTALL CONCRETE FOOTING. ANCHOR BOLTS MUST NOT CONFLICT WITH THE STREET LIGHT POLE BASE. (IF THE CONCRETE FOOTING IS INSTALLED INCORRECTLY, THE FOOTING SHALL BE REPLACED AT THE DEVELOPER'S/CONTRACTOR'S EXPENSE)

7. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL POWER INFRASTRUCTURE FOR THE DEVELOPMENT, INCLUDING COORDINATION WITH THE POWER COMPANY FOR CONNECTION AND SERVICE TO THE PROPOSED STREET LIGHTS

8. ALL PROPOSED STREET LIGHT TYPES AND LOCATIONS MUST BE SHOWN ON THE APPROVED IMPROVEMENT PLANS

9. EACH LIGHT POLE ASSEMBLY SHALL HAVE A PULL BOX (WITH A COVER MARKED "STREET LIGHTING". THE PULL BOX MUST BE FLUSH TO GRADE AND LOCATED WITHIN A MAXIMUM OF 4' FROM THE BASE OF THE POLE

10. INGROUND BOXES LOCATED WITHIN 20' OF APPROACHES OR INTERSECTIONS SHALL BE TRAFFIC RATED. WHERE APPROVED BY THE CITY, ANY BOX INSTALLATION IN CONCRETE WILL REQUIRE THE GROUND BOX TO BE DESIGNED AND LISTED FOR USE IN CONCRETE. SUBMIT BOX SPECIFICATIONS TO THE CITY FOR APPROVAL PRIOR TO INSTALLATION. ALL BOXES SHALL HAVE THE WORDS "STREET LIGHTING" ON THE COVER.

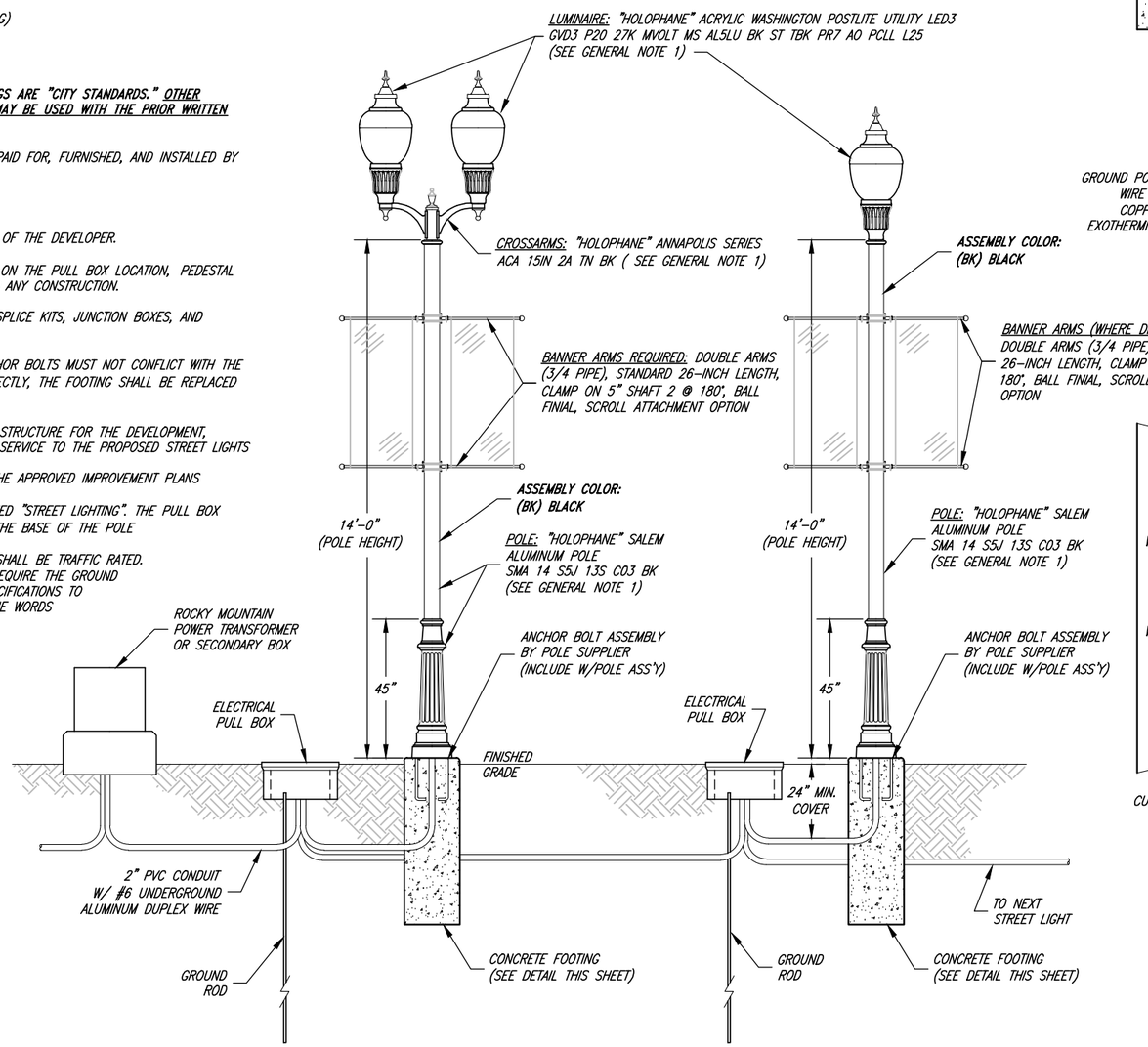
11. ALL RESIDENTIAL DEVELOPMENT STREET LIGHTS SHOULD BE LOCATED ON LOT LINES WHEN NOT LOCATED AT AN INTERSECTION.

12. ALL STREET LIGHTS SHOULD BE LOCATED 3 FEET BEHIND THE BACK OF CURB OR BACK OF SIDEWALK (OR AS OTHERWISE DIRECTED BY THE CITY). ON ROAD SECTIONS WITHOUT CURB & GUTTER LOCATE STREET LIGHT AS DIRECTED BY THE CITY.

ATTENTION

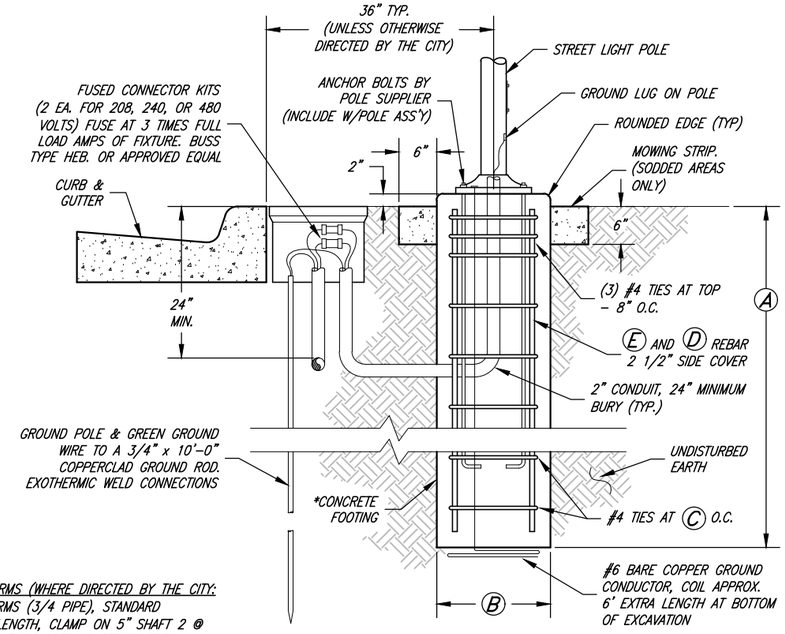
DEVELOPER/CONTRACTOR SHALL NOTIFY THE ROCKY MOUNTAIN POWER OFFICE PRIOR TO LIGHTING INSTALLATION TO ARRANGE FOR POWER TO BE PROVIDED ON SITE, AS WELL AS APPROVAL OF LIGHTING UNIT LOCATIONS.

ALL FINAL WORK AND MATERIALS TO BE APPROVED BY THE CITY .

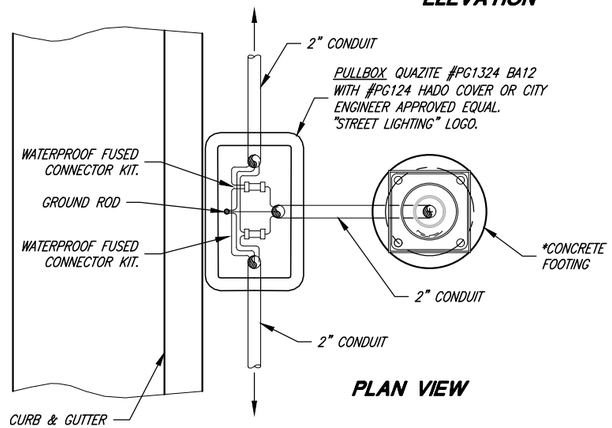


SL-2 DOUBLE ACORN STREET LIGHT

SL-1 SINGLE ACORN STREET LIGHT



ELEVATION



PLAN VIEW

STREET LIGHT POLE, CONCRETE ANCHOR BASE AND PULL BOX

N.T.S.

POLE SIZE	DEPTH (A)	DIAMETER (B)	REBAR TIES O.C. (C)	NO. OF VERT. REBAR (D)	REBAR SIZE (E)
10'-15'	4'-6"	18"	8"	6	#6
16'-25'	6'-0"	24"	8"	8	#7
26'-50'	9'-0"	30"	8"	12	#7

* CONCRETE CLASS 4000 PER APWA 03 33 04, PLACEMENT PER APWA 03 33 10, AND CURE PER APWA 03 33 90

CITY ENGINEER

3/8/2024
DATE

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Clearfield City Public Works

CLEARFIELD CITY CORPORATION
PUBLIC WORKS - STREET LIGHTING STANDARDS
GENERAL STREET LIGHTING STANDARDS

SHEET: SL1
OF X SHEETS
0